

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Application for Order Authorizing Suburban
Water Systems (U339W) to Purchase Sativa
County Water District's Assets and for
Related Approvals.

Application 21-08-011
(Filed August 13, 2017)

**SUBURBAN WATER SYSTEMS
PETITION FOR MODIFICATION OF DECISION 22-04-010**

Timothy Miller
General Counsel
Suburban Water Systems
1325 N. Grand Ave., Ste. 100
Covina, CA 91724
(626) 543-2571
tmiller@swwc.com

Lori Anne Dolqueist
Willis Hon
Nossaman LLP
50 California Street, 34th Floor
San Francisco, CA 94111
(415) 398-3600
ldolqueist@nossaman.com

Attorneys for Suburban Water Systems

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I. INTRODUCTION

In accordance with Rule 16.4 of the Rules of Practice and Procedure ("Commission Rules"), Suburban Water Systems ("Suburban") respectfully submits this petition for modification of Decision ("D.") 22-04-010. In D.22-04-010, the Commission approved Suburban's purchase the assets of Sativa Los Angeles County Water District ("Sativa").¹ Suburban appreciates the Commission's timely approval of this transaction, which closed on December 22, 2022, as well as the Commission's recognition of the transaction's significant benefits.² In particular, Suburban appreciates the Commission's swift action to approve this transaction to remedy the poor management and historically poor water quality and water service that had plagued Sativa's customers.³ The Commission's prompt approval of the above-referenced application ensured Sativa customers' long-term access to safe and reliable water services at affordable prices.

As discussed in more detail below, changed circumstances from when Suburban filed its application will now require Suburban to rely exclusively on purchased water to provide service to the former Sativa customers, and the rate for that water has doubled since the

¹ D.22-04-010, *Application for Order Authorizing Suburban Water Systems (U339W) to Purchase Sativa County Water District's Assets and for Related Approvals*, Decision Authorizing the Purchase of Sativa Los Angeles County Water District by Suburban Water Systems, p. 42, Ordering Paragraph 1.

² *Id.*, pp. 10-14.

³ *Id.*, pp. 4-7.

Commission issued D.22-04-010. Suburban therefore files this petition for modification of D.22-04-010 to authorize Suburban to track in the Sativa Production Cost Balancing Account (“SPCBA”) the difference between the actual price of water purchased from Liberty Utilities (Park Water) Corp. (“Liberty”) and the price that was in effect as of the date of the Asset Purchase Agreement. To support this Petition, a declaration from Suburban president Craig Gott is included as Attachment A.

II. JUSTIFICATION FOR RELIEF

A. Changed Water Production Circumstances

As the Commission noted in D.22-04-010, Los Angeles County Public Works (“LACPW”) became the successor of the former Sativa system in 2019.⁴ LACPW determined that Sativa’s active wells (Well 3 and Well 5) required rehabilitation and treatment. LACPW shut off these wells after it established an emergency interconnection with Liberty.⁵ In January 2019, LACPW entered into an interim service agreement with Liberty whereby Liberty would supply water to Sativa at a rate that was the sum of \$225/af for purchase power and chemical costs, the Water Replenishment District (“WRD”) Replenishment Assessment (\$339/af at time of execution), and the transfer of equal number of Central Basin Groundwater basin rights. The agreement is included with this petition as Attachment B. The agreement was interim until LACPW could rehabilitate the wells and install treatment required to provide safe water to customers. A subsequent amendment, signed by LACPW in December 2020, set the rate at \$1800/af. (Included as Attachment C.) LACPW secured grant funding to construct manganese treatment equipment for Well 5 and engaged a consulting engineer to prepare plans.

In September 2019, LACPW issued a request for proposals (“RFP”) for the purchase of the Sativa system. LACPW noted in the RFP that the Well 5 treatment plant was expected to be completed by the time the system would be transferred to the new owner. Suburban’s proposal

⁴ D.22-04-010, p. 6

⁵ See Direct Testimony of Jorge Lopez, P.E., pp. 22-23, 25.

included the expectation that the treatment system to remove the manganese would be installed and operational by the time of ownership transition. Suburban's RFP received the highest score. After conducting due diligence and commissioning a valuation of the Sativa system, Suburban entered into the Asset Purchase Agreement in April 2021.⁶

The Commission issued D.22-04-010 on April 15, 2022, authorizing Suburban to the purchase of the Sativa. The Commission conditioned the authority for Suburban to operate the Sativa water system upon Suburban's receipt of an operating permit from the State Water Resources Control Board Division of Drinking Water ("DDW").⁷ In November 2022, DDW issued the permit to Suburban to operate the Sativa system. The DDW engineering report that accompanied the permit (included as Attachment D) states, "Suburban WS must ensure that Liberty Utilities will continue to supply water to Sativa water system through the interconnection until Well 5 is back in service and plan to construct additional source and storage facility."

In the meantime, however, the construction of the Well 5 treatment plant has been delayed. The WRD of Southern California, the public agency charged with facilitating the construction of the treatment plant only sent the project to bid on January 6, 2023, and plans to open bids on February 13, 2023. Construction is expected to take between 12 and 24 months and is not expected to be completed until after Suburban's next GRC period commences on January 1, 2024.

Similarly, LACPW did not pursue rehabilitation and treatment of Sativa Well 3, so Suburban will now address the issue. Suburban is now pursuing well investigation to examine the water quality and related rehabilitation and treatment needs for Well 3 so that Sativa customers are no longer subject to the poor water quality provided by the former Sativa Los Angeles County Water District. Suburban expects to complete the investigation work in 2023.

⁶ D.22-04-010, p. 8.

⁷ *Id.*, p. 43, Ordering Paragraph 5.

Whether and to what extent Well 3 will need rehabilitation and treatment is still being analyzed.

Because the Sativa system is dependent on the Liberty connection until the treatment plant is completed, both LACPW and Suburban requested that Liberty consent to the assignment of the interim service agreement to Suburban. When Liberty did not consent to assignment of the interim service agreement, Suburban commenced negotiations with Liberty to address service to the Sativa system. On December 20, 2022, Suburban entered into a service agreement with Liberty at a rate of \$3,600/af, based on the cost for Liberty to provide service to the Sativa system. (Attachment E)

B. Sativa Production Cost Balancing Account (“SPCBA”)

As noted above, Suburban filed Application 21-08-011 on August 18, 2021. Suburban included the request for the SPCBA in its application. Suburban did not include a request for balancing account treatment for water supplied by Liberty in the request for SPCBA because it expected that the construction of manganese treatment plant would be completed at the time of closing. Thus, Suburban would only need to purchase water from Liberty on an emergency basis, making the \$1,800/af rate tolerable. In October 2022, subsequent to Commission approval of the acquisition, LACPW signed an amendment to the interim services agreement that increased the rate of water from Liberty from \$1,800/af to \$3,000/af. (Attachment F). As noted previously, Liberty did not agree to assign that agreement to Suburban.

In D.22-04-010, the Commission granted Suburban’s request to establish the SPCBA to defer any differences between recorded WRD of Southern California Replenishment Assessment rates and a requested adopted rate of \$382.00 per acre-foot (“af”) until the Commission establishes an updated WRD Replenishment Assessment rate in Suburban’s next general rate case (“GRC”).⁸ The SPCBA provides treatment similar to Suburban’s existing balancing account treatment for WRD Replenishment Assessment charges. Without the

⁸ D.22-04-010, pp. 43-44, Ordering Paragraph 10. Suburban filed its general rate case application (A.23-01-001) on January 3, 2023.

SPCBA, Suburban would not otherwise be able to recover/refund uncontrollable changes in WRD Replenishment rates until after the Sativa water system was combined with Suburban's Whittier/La Mirada service area in Suburban's 2023 GRC.⁹

Suburban requested authorization for the SPCA pursuant to Sections 454 and 792.5 of the Public Utilities Code. As Suburban explained, because the integration of the Sativa system with Suburban's Whittier La/Mirada service area for ratemaking purposes will not take place until 2024, Suburban is at risk for changes in the non-controllable WRD Replenishment Assessment rates in the interim.¹⁰ The SPCBA allows Suburban to defer the effects of these non-controllable variations. The SPCBA applies to changes in WRD Replenishment Assessment rates, but does not apply otherwise to changes in the amount of water pumped. In Suburban's 2023 GRC any balances in the SPCBA will be consolidated with Suburban's WRD balances and the SPCBA will be eliminated once a final decision is issued in that proceeding.¹¹

C. Justification for Balancing Account Treatment

The Commission has traditionally allowed water utilities to establish balancing accounts for costs that are beyond their control, such as purchased water costs.

Class A water companies in California are provided special rate relief for certain expenses that are beyond their control. The most important of these expenses are purchased power (electricity or gas), purchased water, and "pump taxes," or groundwater extraction charges. Through Expense Balancing Accounts in place for every Class A water company, increases or decreases in these costs are tracked on a monthly basis, and the difference is either collected from or returned to ratepayers through a rate offset adjustment.¹²

⁹ Application 21-08-011 ("Application"), p. 17.

¹⁰ Direct Testimony of Robert Kelly ("Kelly Direct"), p. 24.

¹¹ *Id.*

¹² D.94-06-033, 1994 Cal. PUC LEXIS 428, **55-56.

Indeed, the Commission has observed, “the balancing account was established for water utilities to assure them of repayment of incurred purchased water expenses.”¹³ It is now the Commission’s standard practice to allow water utilities to track the cost of purchased water in balancing accounts:¹⁴

Expense offsets allow a utility to pass on to the customer changes in certain costs that are considered to be beyond the utility’s control and in the public interest to allow the utility to recover. Since expense offsets allow dollar-for-dollar recovery of these expenses, they are tracked using a balancing account (see below) and may be booked for accrual recovery when they occur. Off-settable expenses include, for all water and sewer service utilities:

- a. purchased power (electricity or natural gas that the utility buys from the energy company),
- b. purchased water,
- c. groundwater extraction charges (pump taxes), and
- d. costs booked to a memorandum account found reasonable for recovery.

As noted above, when Suburban entered into the Sativa Asset and Purchase Agreement and subsequently filed Application 21-08-011, it expected that the need for water from Liberty after closing would be minimal, and that it would be available at a rate of \$1,800/af. Since it did not expect to make extensive use of the water from Liberty after closing, Suburban did not include this purchased water as part of its original request for the SPCBA.

Given the unforeseen delay in the construction of the Well 5 treatment plant, however, Suburban will now need to continue to rely on water from Liberty to be able to provide safe and reliable service to Sativa customers for an extended period. Other than Well 3 and Well 5 that are not being used for the reasons stated above, and the Liberty connection that is the subject of this discussion, the connection with the City of Compton is the only other source for the Sativa water system. The Compton connection is, however, permitted by DDW to operate only as an emergency connection, so it is limited to five consecutive days of operation, and only 15 days total operation per year. In addition, the Compton connection does not have the

¹³ D.90-12-118, pp. 43-44.

¹⁴ See Water Division Standard Practice U-27-W, pp. 3-4.

capacity to satisfy the fire flow needs of the Sativa system. For this reason the Liberty connection is the only viable source.

The unexpected continued need for the water from Liberty, as well as the doubling of the rate for the water from Liberty since D.22-04-010 was issued, place Suburban at risk for these non-controllable charges until a decision is issued in its currently pending GRC.

Suburban therefore requests balancing account treatment for this water from the time of closing¹⁵ until January 1, 2024, the beginning of Suburban's next rate case period.

Granting this petition will allow Suburban to defer the effects of these non-controllable variations in the cost of purchased water from Liberty. The SPCBA will apply to changes in the Liberty water rates, but does not apply otherwise to changes in the amount of water pumped. In Suburban's 2023 GRC any balances in the SPCBA will be consolidated with Suburban's WRD balances and the SPCBA will be eliminated once a final decision is issued in that proceeding.

III. SPECIFIC REQUEST FOR RELIEF

As noted above, the Commission authorized Suburban to establish the SPCBA in Ordering Paragraph 10 of D.22-04-010:

10. Suburban Water Systems is authorized to file a Tier 1 Advice Letter to establish a Sativa Production Cost Balancing Account to defer any differences between recorded Water Replenishment District of Southern California (WRD) Replenishment Assessment rates and an adopted rate of \$382.00 per acre-foot until the Commission establishes an updated WRD Replenishment Assessment rate in Suburban's next General Rate Case.

Suburban respectfully requests that the Commission replace the original Ordering Paragraph 10 with the revised paragraph below:

10. Suburban Water Systems is authorized to file a Tier 1 Advice Letter to establish a Sativa Production Cost Balancing Account to defer any differences between 1) recorded Water Replenishment District of Southern California (WRD) Replenishment Assessment rates and an adopted rate of \$382.00 per acre-foot and 2) recorded Liberty Park Water purchases as of the December 22, 2022 closing date and an adopted rate of \$1,800 per acre-foot. The adopted rates will remain in effect until the Commission establishes updated rates in Suburban's 2023 GRC (A.23-01-001).

¹⁵ "The commission may set the effective date of an order or decision before the date of issuance of the order or decision." Cal. Pub. Util. §1731(a).

IV. CONCLUSION

Suburban appreciates the Commission's timely approval of this transaction, as well as the Commission's recognition of the transaction's significant benefits. For the reasons set forth above, Suburban respectfully requests that the Commission grant this Petition for Modification of D.22-04-010 to provide the relief requested herein.

Respectfully submitted,

Timothy Miller
General Counsel
Suburban Water Systems
1325 N. Grand Ave., Ste. 100
Covina, CA 91724
(626) 543-2571
tmiller@swwc.com

NOSSAMAN LLP

Lori Anne Dolqueist
Willis Hon

By: /s/ Lori Anne Dolqueist
Lori Anne Dolqueist

50 California Street, 34th Floor
San Francisco, CA 94111
(415) 398-3600
ldolqueist@nossaman.com

Attorneys for Suburban Water Systems

January 30, 2023

ATTACHMENT A

DECLARATION OF CRAIG GOTT

I, Craig Gott, declare and state:

1. I am President of Suburban Water Systems. I am an officer of Suburban Water Systems.
2. I have reviewed and/or am familiar with Suburban's Petition for Modification of D.22-04-010 and supporting documents.
3. I have personal knowledge of the facts and representations of fact stated in this Declaration and if called upon to testify could and would so competently, except such facts or representations as are stated to be based on upon information and belief, and as to those matters, I believe them to be true.
4. When Los Angeles County Public Works ("LACPW") was appointed as the successor agency for the Sativa Water County District and recognized that Sativa's active wells (Well 3 and Well 5) required rehabilitation and treatment. LACPW shut off Well 3 and Well 5 as soon as connection with Liberty Utilities (Park Water) Corp. ("Liberty") could be established.
5. On January 29, 2019, LACPW entered into an interim service agreement with Liberty to supply water to the Sativa Water System at a rate that was the sum of \$225/af for purchased power and chemical costs, Water Replenishment District of Southern California ("WRD") Replenishment Assessment (which was \$339/AF at time of execution), and the transfer of equal number of Central Basin Groundwater basin rights. The agreement was interim until LACPW could rehabilitate the wells and install treatment required to provide safe water to customers. LACPW secured grant funding to construct manganese treatment equipment for Well 5 and engaged a consulting engineer to prepare plans.

6. On March 18, 2019, LACPW and Liberty entered into the first amended of the interim service agreement, which required LACPW to install the connection and associated appurtenances and did not change the rate.

7. On September 11, 2019, LACWP issued a Request for Proposals to acquire the Sativa Water System. LACPW noted in the RFP, and mentioned discussions at the pre-bid and site meetings held on September 23, 2019 and October 29, 2019, that the Well 5 treatment plant was scheduled for completion at the time that the system was to be transfer to the new owner.

8. Suburban submitted its proposal on November 12, 2019, in which it stated that it expected that the oxidation-filtration treatment system to remove the manganese would be installed and operational by the time of ownership transition. LACPW selected Suburban's proposal on December 3, 2019 and awarded Suburban the opportunity to negotiate a purchase agreement.

9. On December 21, 2020, LACPW and Liberty signed the second amendment of the interim services agreement, which set the rate at \$1,800/af.

10. Suburban and LACWP executed the asset purchase agreement on April 20, 2021. Suburban filed Application 21-08-011 on August 13, 2021. The application included a request for a Sativa Production Cost Balancing Account ("SPCBA") for balancing account treatment for water costs for Central Basin Groundwater that is subject to annual rate increases for the period between transaction closing and the beginning of Suburban's next general rate case period starting on January 1, 2024.

11. Suburban did not include a request for balancing account treatment for water supplied by Liberty in the request for SPCBA because Suburban understood the construction of manganese treatment plant would be completed at the time of closing and the need for Liberty

water would be significantly diminished, and the \$1,800/AF rate in LACPW's Liberty agreement was tolerable.

12. The Commission issued D.22-04-011 on August 15, 2022, in which it authorized Suburban to purchase the assets of Sativa, conditioned in Suburban obtaining permit from the Division of Drinking Water ("DDW").

13. On October 20, 2022, LACPW and Liberty signed the third amendment of the interim service agreement, which increased the rate for water from \$1,800/af to \$3,000/af.

14. LACPW did not pursue rehabilitation and treatment of Sativa Well 3. Suburban is now pursuing well rehabilitation as well as examining the water quality and related treatment needs for Well 3 so that Sativa customers are no longer subject to the poor water quality provided by the former Sativa Los Angeles County Water District. Suburban expects to complete the rehabilitation work in 2023. Whether and to what extent Well 3 will need treatment is still being analyzed.

15. DDW issued Suburban a permit to operate the Sativa water system on November 4, 2022. The engineering report that accompanied the permit states, "Suburban WS must ensure that Liberty Utilities will continue to supply water to Sativa water system through the interconnection until Well 5 is back in service and plan to construct additional source and storage facility."

16. Suburban and LACPW made oral and written requests for Liberty to consent to the transfer of the interim service agreement to Suburban. Liberty declined, citing concerns with the terms of the agreement.

17. Suburban commenced negotiations with Liberty. Liberty informed Suburban that the average cost to serve the Sativa system is between \$3,550 and \$3,650/af. Suburban entered into a service agreement with Liberty on December 20, 2022 for water at a rate of \$3,600/af.

18. Suburban and LACPW closed the Sativa transaction on December 22, 2022.

19. The Water Replenishment District of Southern California (WRD), the public agency charged with facilitating the construction of the treatment plant, has only sent the manganese treatment equipment project to bid on January 6, 2023, and will not open bids until February 13, 2023. Construction is expected to take between 12 and 24 months and is not expected to be completed until after Suburban's next GRC period commences on January 1, 2024.

20. Until the Well 5 treatment plant is completed, Suburban will need to rely on the Liberty purchased water to serve the former Sativa customers. Other than Well 3 and Well 5 that are not being used for the reasons stated above, and the Liberty connection that is the subject of this discussion, the connection with the City of Compton is the only other source for the Sativa water system. Suburban does not have an agreement with the City of Compton for non-emergency service from this connection, and there is uncertainty as to whether the City of Compton system can provide the required capacity to meet domestic, emergency, and fire flow demands in the Sativa Water Systems. For this reason the Liberty connection is the only viable source.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on January 30, 2023 at Covina, California.

/s/ *Craig Gott*

Craig Gott

President
Suburban Water Systems

ATTACHMENT B

**LIBERTY UTILITIES (PARK WATER) CORP. – SATIVA LOS ANGELES COUNTY WATER
DISTRICT**

INTERIM SERVICE AGREEMENT

This Service Agreement (“Agreement”) is made and entered into by and between Liberty Utilities (Park Water) Corp., a California corporation (“Liberty Park Water”) and Sativa Los Angeles County Water District, a special district (“Sativa”) (each a “Party” and, collectively, the “Parties”). The County of Los Angeles, by and through its Department of Public Works, is the interim administrator for Sativa.

RECITALS

WHEREAS Sativa desires to have a metered service connection (“Service” or “Interconnection”) between Liberty Park Water’s water system and Sativa’s water system for the sale and delivery of water to Sativa for use in Sativa’s water system;

WHEREAS Liberty Park Water, a public utility engaged in the business of producing, distributing, and selling water to its customers, subject to the jurisdiction of the California Public Utilities Commission, is not obligated to its tariffs or otherwise to furnish or sell water to any person or entity, including Sativa, for resale;

WHEREAS Liberty Park Water owns and operates its own water distribution system adjacent to the area presently served by Sativa;

WHEREAS, the Parties desire to establish a contractual relationship authorizing the temporary providing of water by Liberty Park Water to Sativa;

NOW, THEREFORE, for and in consideration of the mutual promises, covenants, and conditions herein contained, the Parties hereto agree as follows:

AGREEMENT

1. Installation of the Service

1.1. The Service is to be located at 700 W 137th St., Compton CA 90222, as shown in Exhibit A attached hereto.

1.2. Liberty Park Water’s obligation to supply water shall be subject to the following: (a) the availability of such water to Liberty Park Water; (b) the ability of the Parties’ water distribution systems to deliver such water through the Interconnection described in this Agreement; and (c) Liberty Park Water’s determination, at its sole discretion, that the supply of such water will not have an adverse economic impact on, or result in the impairment of, or jeopardize Liberty Park Water’s water system, its customers, or its commitments to third parties.

1.3. Water delivered to Sativa pursuant to this Agreement shall be measured and recorded by a water meter with the capability of measuring the expected range of flow within 5% accuracy.

2. Term and Termination

2.1. This Agreement shall commence on the Effective Date (as defined in herein) and shall continue from month to month unless terminated pursuant to or in accordance with this Agreement.

2.2. Either Party may terminate this Agreement upon giving the other party at least thirty (30) days prior written notice.

2.3. In the event this Agreement is terminated for any reason, the Parties shall promptly make an accounting of water exchanges as of the effective date of termination and payment shall be made.

3. Interconnection and Ownership

3.1. There is one Point of Delivery for the water to be supplied pursuant to this Agreement: the Interconnection located at 700 W 137th St., Compton CA 90222.

3.2. Liberty Park Water will own and operate any meters and its associated vaults with respect to the Interconnection. Liberty Park Water shall bear the costs of maintaining the Interconnection.

3.3. Sativa shall install, at its sole cost and expense, the Service consisting of the connection to Liberty Park Water's pipeline, control valve, water meter, backflow device, pressure control valve, and all other facilities required to connect the Service to Sativa's water system.

3.4. Within 30 days following installation of the Service, Sativa shall transfer to Liberty Park Water ownership of the water meter and all portions of the Service from the water meter to the control valve and connection to Liberty Park Water's water main by a bill of sale in form and content acceptable to the Parties.

3.5. Liberty Park Water agrees to allow a defined portion of 12" water main to be used by Sativa on a month-to-month basis. Connections to this 12" main will provide water to the Sativa system in strategic locations. These connections will be installed during the main construction and shall be paid for and owned by Sativa.

3.6. Sativa shall be responsible for the cost of maintenance of the Service facilities owned by Liberty Park Water, including the water meter. Such maintenance is to include periodic testing of the water meter. If the periodic testing of the water meter discloses that the water meter was not measuring and recording within the 5% range of accuracy, an appropriate billing adjustment will be made. Liberty Park Water will perform or arrange for all necessary maintenance and testing of the water meter, and Sativa shall reimburse Liberty Park Water for the cost thereof. Sativa will pay Liberty Park Water for such costs within 30 days after receipt of an invoice from Liberty Park Water.

3.7. Sativa will perform or arrange for all necessary maintenance and/or repair of those portions of the Interconnection that it owns and will have sole responsibility for the costs of such maintenance and/or repair.

3.8. Sativa's right to use the Interconnection and to receive water from Liberty Park Water's water distribution system shall be subject to the limitations in in this Agreement, including those limitations in Section 5 (Delivery of Water).

4. Backflow Prevention and Pressure Reduction

4.1. Liberty Park Water requires the installation of a backflow prevention device on the Service. Such device, of a type and design acceptable to Liberty Park Water, shall be installed downstream of the water meter on Sativa's side of the Service, by and at the expense of Sativa, and shall be maintained in proper operating condition by and at the expense of Sativa.

4.2. Sativa understands that the water pressure in Liberty Park Water's water system may be greater than that in Sativa's water system, and, as a result, it may be necessary for Sativa to install and maintain a pressure-reducing valve and related appurtenances on Sativa's side of the Service connection. Sativa shall be responsible for the installation and maintenance of a pressure-reducing valve and related appurtenances at Sativa's expense. Sativa agrees to request written permission from Liberty Park Water to change settings in pressure or flow as described in Section 4.3.

4.3. Liberty Park Water requires Sativa to receive water in a manner to avoid adverse impacts to the Liberty Park Water's distribution system. Therefore, Sativa agrees to install and maintain any devices necessary to regulate upstream pressure (pressure upstream of the Interconnection (*i.e.*, Liberty Park Water's system)) and maximum flow through the Interconnection. The upstream water pressure (shall not drop below 60 pounds per square inch (PSI) as a result of using this connection. Maximum flow through the connection. The maximum flow through this connection shall be limited to 1,500 gallons per minute (GPM).

4.4. Sativa shall complete inspections on a monthly basis. The inspections will be coordinated with Liberty Park Water and will document the pressure settings, water consumption, downstream (*i.e.*, Sativa's system) water pressure, upstream (*i.e.*, Liberty Park Water's system) water pressure, and all valve positions and operation. The findings of these items will be presented to Liberty Utilities in the form of a monthly report.

5. Delivery of Water

5.1. Liberty Park Water will deliver up to 1,500 GPM of water through this connection. Initial calculations confirm the ability to deliver 1,500 GPM as needed for the Sativa system. Sativa will be provided this reliable and uninterruptible source of water contingent upon meeting the conditions contained in the Agreement. Sativa agrees that it will request water service pursuant to this Agreement only in the case of temporary emergencies, such as a failure or a defect in its wells, pumping, or related equipment and facilities, or the inability of such facilities to provide water in such quantity or of such quality as Sativa deems necessary to meet its customers' needs, which failure, defect, or inability Sativa agrees to repair or correct in a

timely manner. Water can be provided at the Service only upon request by Sativa to Liberty Park Water's central control operator.

5.2. Liberty Park Water will supply only such water at such pressure as may be available from time to time from the operation of its water system. The Parties understand and agree that, in the event Liberty Park Water cannot deliver water to Sativa without negatively affecting Liberty Park Water customers, Liberty Park Water may reduce or suspend indefinitely service under the Agreement until such time as Liberty Park Water deems it appropriate to restore water delivery under this Agreement. Liberty Park Water will attempt to provide no less than twelve (12) hours written notice of its intent to interrupt or curtail such service and will restore such service to Sativa as soon as practicable. Both Parties acknowledge that Liberty Park Water does not have any obligation to provide any guaranteed amounts of water to Sativa and that Liberty Park Water will undertake reasonable commercial efforts to do so when requested by Sativa.

5.3. Although Liberty Park Water will make every effort to provide water to the Sativa water system through this connection consistently and as needed, water delivery to Sativa pursuant to this Agreement may be denied, limited, curtailed, or terminated if Liberty Park Water, in its sole discretion, determines that conditions within its water system warrant such a denial, limitation, curtailment, or termination. Liberty Park Water shall have the right to close the Interconnection upon giving five business days' notice to Sativa.

5.4. Liberty Park Water agrees that all water provided to Sativa through the interconnection will comply with Title 22 of the California Code of Regulations and all other Federal, State and local law, ordinances, rules and regulations for water quality.

5.5. Because Sativa is providing water service to its customers through Sativa's distribution facilities over which Liberty Park Water does not have any control or responsibility, Liberty Park Water cannot, and does not, make any warranty or representation as to the quality of the water once delivered to Sativa or at its ultimate point of use by Sativa. Sativa shall be solely and exclusively responsible for delivery of water to Sativa's customers after it has taken possession of the water from Liberty Park Water. Sativa acknowledge and agrees that Liberty Park Water shall not have any duties or responsibilities relating to delivery of water to or use of water by Sativa's customers. As such, Sativa shall defend, indemnify and hold harmless Liberty Park Water as to any third-party claim regarding injury or damage resulting from water quality of water delivered under this Agreement, provided that Liberty Park Water is in compliance with section 5.4 of this agreement.

6. Rates and Charges

Water furnished through the Service shall be measured by a water meter that Liberty Park Water will read monthly. Liberty Park Water will bill Sativa, and Sativa agrees to pay Liberty Park Water as detailed in the table attached to this Agreement (*i.e.*, provide the equal amount of water consumed through the connection in "pumping water rights" plus \$225 for Power and Chemical costs plus the Water Replenishment District of Southern California's (WRD) current applicable Recharge Assessment (RA, which is currently \$339/acre feet [AF])). Liberty Park Water will total the water consumption for the meter in preparing its monthly billing to Sativa,

and Sativa shall pay Liberty Park Water monthly for the metered usage during the term of this Agreement. The Parties do not assert, and Sativa expressly denies, that the California Public Utilities Commission has any jurisdiction over Sativa, including, but not limited to, water rate settings.

7. Indemnity

7.1. With the exception of any claim, cause of action, or any liability, loss, damage, or expense arising solely from the quality of water, presence of pollutants, pesticides or chemicals, or safety of water delivered to the service, Sativa hereby releases and agrees to indemnify, hold harmless, and defend Liberty Park Water and its directors, officers, employees, agents, and contractors from and against any claim, cause of action, or any liability, loss, damage, or expense, including reasonable attorneys' fees, which Liberty Park Water or its directors, officers, employees, agents, and contractors may incur or suffer by reason of any claim asserted by or on behalf of Sativa or Sativa's customers, the public, or other person or entity, directly or indirectly arising from this Agreement, or relating to any water or water service furnished pursuant to this Agreement, including, without limitation to, Liberty Park Water's active or passive negligence.

7.2. To the fullest extent permitted by law, Sativa shall indemnify, defend, and hold harmless Liberty Park Water, its parent and affiliates, and its current and former officers, directors, agents, employees, representatives, and its successors and assigns from and against all claims, demands, actions, liabilities, losses, damages, costs, and expenses, including reasonable attorneys' fees and expenses arising from or relating to (a) any acts or omission of Sativa, its employees, contractors, consultants, and/or agents; (b) delivery of water by Sativa to Sativa's customers; (c) the quality of water delivered by Sativa to Sativa's customers; (d) Sativa's use of water and/or the Interconnection; (e) Sativa's breach of a representation, warranty, covenant, or obligation under the Agreement; (f) Sativa's gross negligence or willful acts or omissions in performing under this Agreement.

8. Limitation of Liability

In no event shall either Party be liable to the other Party, whether under breach of contract, tort (including negligence), strict liability or any other theory of liability, whenever arising, for consequential, punitive, special, or indirect damages of any nature.

9. Continuation of Agreement

Subject to the provisions of Section 5 (Delivery of Water) of this Agreement, and provided that Sativa complies with and performs all of the terms and conditions required of it under this Agreement, this Agreement shall remain in effect until terminated by either party hereto upon 30 days written notice given to the other party.

10. Removal of the Service Connection

Upon termination of this Agreement, in addition to all other rights it may have, Sativa may remove all or any part of the facilities comprising the Service. Also, upon termination, Sativa

will, upon request from Liberty Park Water, disconnect the Service from Liberty Park Water's system at Sativa's expense.

11. Notices

Any formal notice, demand, or request provided for in this Agreement, or given or made in connection with this Agreement—including any invoices under this Agreement—shall be in writing and shall be deemed to be properly given or made by one of the following methods: personal delivery; recognized overnight delivery service; facsimile; certified U.S. Mail, postage prepaid:

If to Liberty Park Water:

Liberty Utilities (Park Water) Corp.
9750 Washburn Road,
Downey, CA 90241
Attn: Frank M. Heldman, Director of
Operations

Tel: (562) 923-0711

If to Sativa:

Sativa Los Angeles County Water District
2015 E. Hatchway St.
Compton, CA 90222
Attn: Russ Bryden, General Manager

Tel: (626) 458-4334

11.1. Any formal notice, demand, or request personally delivered shall be deemed received upon receipted delivery; if by recognized overnight delivery service, upon receipted delivery; if by U.S. Mail, it will be deemed received three (3) business days following deposit in the U.S. Mail.

11.2. A Party may at any time, by written notice, change the designation or the address of the person so specified.

11.3. This Section does not apply to notices and requests of a routine character in connection with delivery or receipt of water or in connection with operation of facilities. Such notices and requests shall be given in such manner as the operating representatives from time to time shall specify.

12. Laws, Regulations, Permits

12.1. This Agreement shall be governed by, and interpreted in accordance with, the laws of the State of California without regard to principles of conflicts of law.

12.2. Parties shall give all notices required by law and comply with all laws, ordinances, rules, and regulations. Any permits or licenses, including without limitation, National Pollution Discharge Elimination System permits, shall be secured, paid for, and complied with by Sativa.

13. Waiver

No waiver or failure to exercise any right, option or privilege under the terms of this Agreement on any occasion shall be construed to be a waiver of any other right, option or privilege on any other occasion.

14. Assignment

This Agreement may not be assigned by either Party without the express written consent of the other Party with such consent not to be unreasonably withheld.

15. Entire Agreement

This Agreement constitutes the entire agreement between the Parties with respect to the subject matter hereof, and supersedes all oral or written representations or written agreements that may have been entered into between the parties. Except as otherwise provided in this Agreement, no modification or revision shall be of any force or effect, unless the Parties agree to such modification or revision in a writing executed by the Parties.

16. Multiple Counterparts

This Agreement may be executed in counterparts, including via facsimile and PDF, each of which shall be an original, and all of which when taken together shall constitute one and the same instrument.


17. Effective Date and Authority

17.1. The effective date of this Agreement shall be the latest date of execution hereinafter set forth below the names of the signatories hereto.


17.2. In the event the last signatory fails to set forth the execution date opposite the name of its signatory, the effective date shall be the date upon which the last signatory's executed copy of the Agreement is transmitted to the other Party.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed on the date hereinafter respectively set forth.

**LIBERTY UTILITIES (PARK WATER)
CORP.**

By: 
Name: Greg Sorensen
Title: President, Liberty Utilities
(West Region)
Date: 1/28/2019

**SATIVA LOS ANGELES COUNTY
WATER DISTRICT**

By: 
Name: Russ Bryden
Title: ADMINISTRATOR, SATIVA WATER DISTRICT
Date: 1/29/19

ATTACHMENT C

**LIBERTY UTILITIES (PARK WATER) CORP. – SATIVA LOS ANGELES COUNTY
WATER DISTRICT**

INTERIM SERVICE AGREEMENT

AMENDMENT NO. TWO

This Interim Service Agreement Amendment (“Amendment”) is made and entered into by and between Liberty Utilities (Park Water) Corp., a California corporation (“Liberty Park Water”) and Sativa Los Angeles County Water District, a special district (“Sativa”) (each a “Party” and, collectively, the “Parties”). The County of Los Angeles, by and through its Department of Public Works, is the interim administrator for Sativa.

RECITALS

WHEREAS the Parties have entered into a Liberty Utilities (Park Water) Corp. - Sativa Los Angeles County Water District Interim Service Agreement (“Agreement”) on January 29, 2019, for the sale and delivery of water by Liberty Park Water to Sativa for use in Sativa's water system;

WHEREAS on February 13, 2019, the Local Agency Formation Commission for the County of Los Angeles (“LAFCO”) adopted Resolution No. 2019-02RMD (“LAFCO Resolution”), which among other things (1) dissolved the Sativa District and (2) appointed the County as the “successor agency” for the Sativa District, succeeding to all of the rights, duties, and obligations of the Sativa District with respect to enforcement, performance, or payment of outstanding bonds or other contracts and obligations of the Sativa District and winding up the affairs of the Sativa District pursuant to Government Code §§ 56886(m) and 57451(c) and subject to Health and Safety Code § 116687, including the power to exchange, sell, or otherwise dispose of all property, real and personal, of the Sativa District.

WHEREAS Section 15 of the Agreement provides that the Agreement may be modified by mutual consent in writing;

WHEREAS the Parties wish to revise certain obligations set forth in the Agreement;

NOW, THEREFORE, for and in consideration of the mutual promises, covenants, and conditions herein contained, the Parties hereto agree as follows:

AMENDMENT


1. Paragraph 6 is amended to read:
- 6.1. Water furnished through the Service shall be measured by a water meter that Liberty Park Water will read monthly. Liberty Park Water will bill Sativa, and Sativa agrees to pay Liberty Park Water, \$1,800 per acre foot of water measured by the water meter.

Liberty Park Water will total the water consumption for the meter in preparing its monthly billing to Sativa, and Sativa shall pay Liberty Park Water monthly for the metered usage during the term of this Agreement. The Parties do not assert, and Sativa expressly denies, that the California Public Utilities Commission has any jurisdiction over Sativa, including, but not limited to, water rate settings.


- 6.2. Liberty Park Water will provide Sativa an invoice no later than five (5) working days after the close of the month. Sativa will pay the invoice in full within fifteen (15) days of receipt. The payment of the invoice will be considered late if the payment is not received within thirty (30) days. Late payments will be subject to a 10% late fee.
2. All other paragraphs in the Agreement remain in full force and effect.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed on the date hereinafter respectively set forth.

**LIBERTY UTILITIES (PARK WATER)
CORP.**

By: 
Name: Chris Alario
Title: President, California
Date: 12/01/20

**SATIVA LOS ANGELES COUNTY
WATER DISTRICT**

By: 
Name: DANIEL J. LAFFERTY
Title: DEPUTY DIRECTOR
Date: 12/21/20

APPROVED AS TO FORM:

RODRIGO A. CASTRO-SILVA
Acting County Counsel

By: 
Deputy

ATTACHMENT D

Engineering Report

*For Consideration of Full Permit Revision for the
Suburban Water Systems – Sativa*

*Serving Portions of the City of Compton and
Willowbrook, an Unincorporated Area of Los Angeles County*

November 4, 2022

Prepared By:

Ofelia Oracion

*Ofelia Oracion
Sanitary Engineer, Angeles District*

Approved By:

Jeff O'Keefe  Digitally signed by Jeff O'Keefe
Date: 2022.11.04 14:30:34 -07'00'

*Jeff O'Keefe, P.E.,
Chief, Southern California Section*

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1. INTRODUCTION

1.1. Purpose of Report

On July 8, 2022, the Division of Drinking Water (hereinafter, Division) of the State Water Resources Control Board (hereinafter, State Water Board) has received from Suburban Water Systems (hereinafter, Suburban WS) a permit amendment application ([Appendix A](#)) for the change of ownership of Sativa Water System (hereinafter, Sativa), System No. 1910147, from the Los Angeles County (hereinafter, LA County) to Suburban WS and the completed technical, managerial, and financial document (TMF Assessment Review Form).

A complete evaluation of the technical, managerial, and financial capacities of Suburban WS was performed by the Division based on information provided in the TMF Assessment document and available data on file with the Division ([Appendix B](#)). After completion of the acquisition of Sativa, Suburban WS will change the name of Sativa to Suburban Water Systems – Sativa (hereinafter, Suburban WS – Sativa).

This report will document the change of ownership of Sativa, System No. 1910147 from LA County to Suburban WS, the engineering review and evaluation of the water supply system facilities as they currently exist, outline the existing deficiencies and the needed improvements, including the water system's compliance status with the directives of Compliance Order No. 04_22_18R_002 issued by the Division to the then Sativa Los Angeles County Water District (hereinafter, SLACWD) on June 1, 2018 and to make recommendations regarding the issuance of a domestic water supply permit to Suburban WS – Sativa.

1.2. Background Information

Sativa water system is being operated under the revised full domestic water supply permit (Water Supply Permit No. 04-22-20P-009) issued to LA County on December 23, 2020. From November 1, 2018 to March 19, 2019, the LA County served as the Administrator appointed by the State Water Board for the SLACWD water system. On March 19, 2019, the Los Angeles Local Agency Formation Commission (hereinafter, LA LAFCO) appointed the LA County as the successor agency for SLACWD.

The dissolution of SLACWD was initiated after a brown water incident occurred in April 2018. Many complaints were received by SLACWD not only because of issues related to the water quality but also issues on how the water system was managed. These issues were brought to the LA County Department of Public Health (DPH), then the State Water Board and LA LAFCO's attentions, and eventually to the media. Staff from the three agencies conducted investigations.

On June 1, 2018, the Division issued Compliance Order No. 04_22_18R_002 to SLACWD for the failure to provide its customers with a reliable and adequate supply of pure, wholesome, healthful, and potable water, and the failure to comply with the source capacity, minimum flushing velocity, and minimum pressure requirements of the

California Waterworks Standards. Directive 3 of the compliance order directed SLACWD to prepare a Corrective Action Plan (CAP) identifying improvements to the water system to address source capacity deficiencies, the general physical water quality issues in the distribution system, fire flow deficiencies, and the infrastructure deficiencies hampering effective maintenance of the system, such as flushing activities. The SLACWD failed to provide an adequate CAP to address the deficiencies.

On July 11, 2018, LA LAFCO voted unanimously to begin the process of dissolving the SLACWD. LA LAFCO adopted Resolution No. 2018-00RMD that approved the proposed Commission-Initiated Resolution of Application for Dissolution of the SLACWD.

On October 31, 2018, the State Water Board issued Administrator Order No. 04_22_18R_003 to SLACWD pursuant to Assembly Bill 1577. In addition to the issues documented in Compliance Order No. 04_22_18R_002, this Order documented the serious technical and managerial capacity problems. The Order appointed LA County as the State Administrator for SLACWD and terminated SLACWD's Board of Directors. On November 1, 2018, the LA County assumed full administrative, managerial, and financial control of SLACWD.

On February 13, 2019, LA LAFCO approved Resolution No. 2019-02RMD, ordering dissolution of SLACWD. On March 19, 2019, LA LAFCO appointed the LA County as the successor agency for SLACWD. The LA County became the legal owner of the SLACWD and named the water system Sativa Water System.

The LA County had made many capital improvements to the Sativa water system. The improvements included (1) construction of Liberty Utilities Interconnection, (2) construction of 8-inch pipeline along Paulsen Avenue to deliver water from the Liberty Utilities Interconnection, (3) installation of Supervisory Control and Data Acquisition System (SCADA), (4) rehabilitation of Well 5, (5) construction of Lucien Waterline Project, and (6) installation of 12.5 percent sodium hypochlorite chlorination systems at Wells 3 and 5 sites. Future projects for Sativa include pipeline improvements and equipping Well 5 with manganese treatment

In June 2021, the LA County contracted Suburban WS to operate the Sativa water system. On August 13, 2021, Suburban WS filed an application seeking authorization from the California Public Utilities Commission (hereinafter, CPUC) to purchase Sativa from LA County. The application was posted on CPUC's calendar on August 18, 2021. No protests or responses were received. The application was approved on April 7, 2022. The decision authorizing the purchase of Sativa by Suburban WS was issued on April 15, 2022 ([Appendix C](#)).

The decision authorized Suburban WS to expand its Certificate of Public Convenience and Necessity to immediately include Sativa service area into its Whittier/La Mirada Service Area for operational purposes. Eligible low-income Sativa customers may apply for the Low-Income Ratepayer Assistance program as of the closing of the acquisition.

CPUC has authorized Suburban WS to integrate the Sativa service area into the Whittier/La Mirada Service Area for ratemaking purposes as of January 1, 2024. Beginning January 1, 2024, rates for Sativa customers will be determined in Suburban WS' 2023 general rate case which is to be filed on January 3, 2023. If the acquisition closes prior to December 31, 2023, Sativa single unit rates will be reduced to a flat rate of \$62 per month plus fees and charges. After December 31, 2023, Sativa rates will be subject to the Whittier/La Mirada Service Area Zone 1 Commission approved rates and charges.

The decision also authorized the establishment of the Sativa Transaction Cost Memorandum Account and the Environmental Improvements and Compliance Issues for Acquisitions Memorandum Account. Suburban WS was also authorized to establish the Sativa Production Cost Balancing Account.

The decision also promotes the CPUC's nine goals set forth in the Environmental and Social Justice Action Plan. Additionally, the acquisition of Sativa by Suburban WS will help promote and improve the safety of the Sativa water system. Finally, the acquisition will not have an impact on the environment and therefore will not be subject to review under the California Environmental Quality Act (CEQA).

Prior to closing of the acquisition, Suburban WS must receive the permit from the Division to operate the Sativa water system. The Domestic Water Supply Permit for Suburban WS - Sativa, is the subject of this permit investigation.

1.3. Brief Description of Suburban WS and Sativa

Suburban WS

Suburban WS is a class A regulated water company which serves a population of approximately 300,000 people in portions of Glendora, Covina, West Covina, La Puente, Hacienda Heights, City of Industry, Whittier, La Mirada, La Habra, Buena Park and unincorporated portions of Los Angeles and Orange counties. Among Suburban WS water systems in the Los Angeles County include the following:

- Suburban WS – Covina Knolls, System No. 1910200
- Suburban WS – Glendora, System No. 1910046
- Suburban WS – La Mirada, System No. 1910059
- Suburban WS – San Jose, System No. 1910205
- Suburban WS – Whittier, System No. 1710174

Suburban WS owns and operates 18 groundwater wells, 32 reservoirs and more than 860 miles of pipelines. The groundwater wells withdraw water from the Main San Gabriel Basin and Central Basin. Suburban WS also purchases water from the member agencies of the Metropolitan Water District of Southern California (MWDSC), Covina Irrigating Company, and California Domestic Water Company. Suburban WS is regulated by CPUC.

Suburban WS is a subsidiary of SouthWest Water Company which operates in six other states (Alabama, Florida, Louisiana, Oregon, South Carolina and Texas) and serves approximately 600,000 customers.

Sativa

The Sativa water system is a community water system located approximately 11 miles south of the downtown Los Angeles. The service area lies within the boundary of the Central Water Basin and encompasses about 0.25 square mile area. It serves a portion of the City of Compton and portion of Willowbrook, an unincorporated area of the Los Angeles County.

The water system has two active groundwater wells (Wells 3 and 5), one active one-way connection with Liberty Utilities and one emergency connection with the City of Compton. The system has one inactive well (Well 2). The system also has four hydro-pneumatic tanks. The 10,000-gallon capacity hydro-pneumatic tank at the Well 2 site has been disconnected from the distribution system. The Well 3 site has two 10,000-gallon capacity hydro-pneumatic tanks. The tanks operate simultaneously. The Well 5 site has one 10,000-gallon capacity hydro-pneumatic tank. Water produced by the wells is pumped to the hydro-pneumatic tanks first before being distributed to the system. Wells 3 and 5 are each equipped with a sodium hypochlorite chlorination system. The water served by the Liberty Utilities contains free chlorine most of the time.

Well 3 is an old well and its capacity has reduced substantially through the years. The well operates on as needed basis. Well 5 was Sativa's main source. However, Well 5 has been out of service since October 2020 due to elevated level of manganese in the well water exceeding the secondary maximum contaminant level (MCL) of 0.05 mg/L. The LA County has been relying on 100 percent of Sativa's water from the interconnection with Liberty Utilities. So far, the interconnection with the Liberty Utilities has been adequate to meet the demands in Sativa's service area.

The LA County, in collaboration with the Water Replenishment District of Southern California (WRD), has proposed to install a manganese treatment facility for Well 5. Tetra Tech prepared the engineering plans and specifications for the proposed treatment system. The Division has reviewed the plans and specifications and comments provided to LA County in April 2021 and March 2022. Plans and specifications have been revised and accepted by the Division in September 2022. Construction of the treatment system is scheduled to commence in early 2023.

The distribution system has only one pressure-zone, with eight miles of transmission and distribution pipelines consisting of asbestos-cement, steel, ductile iron, cast iron and polyvinylchloride pipes. The distribution system has no booster station and no storage tank. All service connections are not metered. The operation of the sources and sodium hypochlorite chlorination systems are monitored by the SCADA system.

1.4. Enforcement History

The Division has not issued enforcement actions against Sativa since the water system's operation and management was turned over to LA County on November 1, 2018. Prior to November 2018, the Division issued two enforcement actions against SLACWD: (1) Compliance Order No. 04-22-18R-002, and (2) a Warning Letter.

Compliance Order No. 04-22-18R-002 was issued on June 1, 2018 to SLACWD for the failure to provide its customers with a reliable and adequate supply of pure, wholesome, healthful, and potable water. Specifically, the water system violated the California Waterworks Standards for the failure to comply with the source capacity, minimum flushing velocity, and minimum pressure requirements

A Warning Letter was subsequently issued on July 23, 2018 after the Division discovered that SLACWD posted on its website a file entitled "Sativa Los Angeles County Water District System Improvements, June 2018", a Notice Inviting Bids for the "Paulsen Avenue Water Main Phase 2- Project No. 106-WTR", and a meeting agenda showing the interconnection and another Paulsen Avenue Water Main Project (Phase 1). SLACWD was warned that they must comply with Directives 3, 4 and 5 of the Compliance Order and not to proceed with projects without first demonstrating to the Division that the projects would help solve the problems listed in Directive 3 and comply with the California Waterworks Standards. As documented in the Administrative Order issued to SLACWD on October 31, 2019, the plans and specifications for both Paulsen Avenue Water Main projects and the Corrective Action Plan submitted by SLACWD were incomplete, contained various errors, and inadequate to demonstrate compliance with the California Waterworks Standards.

The LA County identified corrective actions to bring the Sativa water system back to compliance and has made many capital improvements to the Sativa water system as discussed in Section 1.2 of this report.

The Suburban WS has identified five-year capital improvement projects for Sativa ([Appendix D](#)). The two major projects include (1) construction of storage tank, and (2) drilling of new well.

1.5. Service Area

Sativa's service area is bounded by Wayside Street and 131st Street on the north, Oris Street and 139th Street on the south, Mona Boulevard on the east and Paulsen Street and Wilmington Avenue on the west. The boundaries of the service area have not changed since the original formation in 1938. The service area is a residential community composed of single-family houses. The terrain is basically flat. The service area map is appended in [Appendix E](#). The schematic of the water supply system is appended in [Appendix F](#).

1.6. Consumer and Production Data

The water system serves a permanent residential population of 6,837 through 1,643 active service connections. Except for one commercial connection, all service connections are classified as residential connections and none of the connections is metered. There are about 57 fire hydrants and four blow-off assemblies strategically located in the distribution system. Table 1 summarizes the population served and service connections records for the last 10 years.

Table 1: Historical Water Production Profile (2012-2021)

Year	Served Population		Water Production (MG)			MDD		Maximum Month	
	Resident	Service Conn.	Produced	Purchased ¹	Total	MG	Date (M/D)	Flow (MG)	Month
2012	6813	1631	207.22	0	207.22	0.52	10/23	19.41	October
2013	6813	1631	189.52	0	189.52	0.94	7/5	17.98	July
2014	6837	1637	165.58	0	165.58	NR	NR	16.81	July
2015	6837	1640	152.21	0	152.51	0.88	6/13	15.02	March
2016	6837	1643	153.99	0	153.99	0.98	6/20	18.13	June
2017	6837	1643	156.52	0	156.52	0.65	10/24	14.91	July
2018	6837	1643	167.10	0	167.10	0.65	9/15	17.23	July
2019	6837	1643	93.77	55.72	147.49	0.65	7/12	14.90	August
2020	6837	1643	14.64	164.55	179.19	0.54	9/6	17.19	August
2021	6837	1643	0	180.16	180.16	0.55	9/5	17.21	August

Source: 2012 – 2021 Electronic Annual Report to the Drinking Water Program (EAR); MG – Million Gallons

MDD – Maximum Day Demand; M/D – Month/Day; NR – No Record

¹ Through Liberty Utilities Interconnection

1.7. Sources of Information

All information gathered for this report was obtained from the Division's files, meetings with LA County and Suburban WS staff, TMF documentations, the review of the water system's files and records, and the on-site field inspection conducted by Ofelia Oracion, Sanitary Engineer with the Angeles District on August 18, 2022. The investigation, analysis and preparation of this report were undertaken by Ms. Oracion under the supervision of Jeff O'Keefe, P.E., Southern California Section Chief.

2. INVESTIGATION AND FINDING

2.1. SOURCES OF SUPPLY

Sources of supply for Sativa's domestic water distribution system include groundwater from two active wells, Wells 3 and 5, an active interconnection with the Liberty Utilities – Compton/Willowbrook water system, and one emergency interconnection with the City of Compton.

The water system primarily obtains its supply from Liberty Utilities Interconnection. Well 5 was removed from service in October 2020 due to the increasing concentrations of manganese produce by the well. Well 3 serves as the backup source. The City of

Compton Interconnection will be used only during emergencies. Table 2 summarizes the Suburban WS – Sativa sources.

Table 2: Water Supply Sources

Source	Status	Primary Station (PS) Code	Treatment	Capacity (gpm ¹)	Comments
Well 3	Active	CA1910147_002_002	Sodium hypochlorite chlorination system for disinfection.	424 ³	The well is 78 years old and has no annular seal. It has history of sand pumping. Tetrachloroethylene (PCE) is detected in the water. 1,4-dioxane is above the notification level of 1 µg/L, but lower than the response level of 35 µg/L.
Well 5	Active	CA1910147_005_005	Sodium hypochlorite chlorination system for disinfection.	650	Newly rehabilitated. Water produced from the well contains PCE, 1,4-dioxane, and elevated level of manganese. The well is currently offline.
Total Capacity of Active Wells				1,074	

Source	Status	Primary Station (PS) Code	Treatment	Capacity (gpm ¹)	Comments
Inter-connection with the Liberty Utilities – one way ⁴	Active	CA1910147_010_010	Groundwater sources by hypochlorination or surface water purchased from the Metropolitan Water District of Southern California, which is treated by conventional filtration, chloramination and fluoridation. Fluoridation is also provided to one of the Liberty Utilities wells. Liberty Utilities will rely on chlorinated well water majority of the time, but plan to switch to 100 percent MWDSC water if groundwater sources are not adequate to meet system demand.	1,500	This inter-connection facility was permitted in July 2019.
Total Active Interconnection Capacity				1,500	
Inter-connection with the City of Compton – one way	Emergency	CA1910147_009_009	Groundwater sources by hypochlorination; purchased surface water from the Metropolitan Water District of Southern California, which is treated by conventional filtration, chloramination and fluoridation. However, the City of Compton rarely utilizes the MWDSC interconnection.	900	Good condition
Total Emergency Interconnection Capacity				900	

¹ Gallon per minute

² The maximum pump operating capacity based on the result of efficiency test conducted by Edison Company on September 10, 2020.

³ The maximum production rate set based on the result of pump efficiency test conducted by Edison Company on September 10, 2020.

⁴ The primary source for Sativa water system

2.1.1. Active Groundwater Wells

Sativa's groundwater sources extract water from the Central Groundwater Basin. The aquifers consist of Gage Aquifer (200 to 300 feet below ground surface (bgs), Hollydale Aquifer (450 to 500 feet bgs), Lynwood Aquifer (590 to 670 bgs), Silverado Aquifer (680

to 780 feet bgs), and Sunnyside Aquifer (820 to 1,000 feet bgs). WRD is responsible for management, monitoring, replenishment, and protection of groundwater in the Central Groundwater Basin. Based on WRD's water quality monitoring data, there are trichloroethylene (TCE) and PCE plumes in the basin. Table 3 lists the water system's active groundwater sources and the construction information.

Table 3: Active Groundwater Source Construction Information

Source Name	Depth (feet)	Perforation Depths (feet)	Casing Diameter (inches)	Annular Seal
Well 3 (Backup source)	316	236 to 247; 264 to 281	14	None
Well 5 (Currently offline.)	510 ¹	200 to 240; 380 to 500 ²	Original -16 After Rehabilitation: Provided with 12-inch Stainless Steel Liner to 510 feet	The annular seal between the original casing and the borehole extended to 180 feet bgs. The annular space between the original 16-inch casing and the new 12-inch liner was filled with glass beads from 180 to 510 feet bgs and with bentonite cement from the ground surface to 180 feet bgs.

¹ Depth of the well after rehabilitation. It was 910 feet when drilled in 1993.

² This well has four perforations originally: the first perforation from the top was from 200 to 240 bgs, the second perforation was from 380 to 510 bgs, the third perforation was from 550 to 670 feet bgs, and the fourth perforation was from 750 to 890 feet bgs. The third and the fourth perforations were abandoned after the well was rehabilitated in 2020.

The Southern California Edison Company conducted the pump efficiency tests for Wells 3 and 5 on September 10, 2020. The results of the tests ([Appendix G](#)) indicate the efficiencies of these pumps are acceptable. Suburban WS has scheduled to perform the next pump efficiency test in 2023.

Well 3: PS Code 1910147 002 002

Well 3 is housed in a concrete block building located on a 50 by 100 feet lot. The lot is securely fenced with wrought iron fence and with barb wire on the top of the fence and locked gate. The building is lighted and ventilated. The well site is properly maintained and equipped with a burglar monitoring system.

The well is 78 years old. It was drilled in 1944 and has history of sand pumping. In 2016, the well was removed from service because of excessive sands in the well water. According to the former SLACWD staff, soil materials around the deeper portion of the well had collapsed and entered the casings. To address the issue, the pumping equipment was replaced with a lower horsepower pump and the length of the suction pipe was shorten. No sand pumping issue has been reported since. The well operates once a week, on Mondays, for one hour to make sure the well is operable when needed. The well currently serves as a backup source for Liberty Interconnection. **In their letter of October 14, 2022 to the Division, Suburban has indicated to assess the integrity of the well and its equipment within the next three years. Depending**

on the result of evaluation, Suburban WS will either rehabilitate the well or construct a replacement well.

Well 3 has a 14-inch diameter 10-gage steel casing, with the highest perforation at 236 feet bgs. As observed during well drilling, there are three impervious clay layers above the first perforation. The thicknesses of impervious layers are 21 feet, 15 feet and 152 feet at depths from 36 to 57 feet bgs, 60 to 75 feet bgs and 84 to 236 feet bgs, respectively. The casing is perforated from 236 to 247 feet bgs and from 264 to 281 feet bgs. The well has no annular seal. A copy of the well log is on file with the Division

The well is equipped with a 50 Hp Vertical Turbine (VT) pump and motor. The pump is oil lubricated, electrically powered, and may be set to control automatically by a pressure switch. Although Well 3 can be operated by the SCADA system, the well is set to be run manually at this time. The operator can switch it back to automatic control mode when needed. The well is capable of pumping up to 424 gpm.

An air-relief vacuum breaker valve, flow meter, check valve and sampling tap are provided on the well's discharge line. The vent opening of the air-release vacuum breaker valve is screened. The sampling tap with a vacuum breaker is located between the wellhead and the check valve. The pump is adequately surface sealed at the base. The concrete flooring is raised up to the motor base. The flooring is gradually sloping away from the motor base. The well is equipped with a pump-to-waste line with a screen at the discharge pipe opening and an airgap. Water from Well 3 is chlorinated and pumped into a hydro-pneumatic tank. The well has no back-up power. The Well Data Sheet for Well 3 is appended in [Appendix H](#).

In January 2001, a source water assessment was conducted for Well 3 by the Division staff using TurboSWAP. According to the source water assessment report, the PCA within Well 3's protection zones include water supply wells. Well 3 is approximately 1,950 feet west from Well 5 and approximately 2,600 feet northeast from the inactive well, Well 2. Well 3's PBE was considered moderate. The well is over 75 feet from the nearest sewer.

Well 5: PS Code 1910147-005

Well 5 was the primary source for Sativa water system. However, the well was removed from service in October 2020 due to increased level of manganese in the well water. Manganese concentration in a sample collected in October 2020 was 0.34 mg/L, six times more than the secondary MCL of 0.05 mg/L. Compliance with manganese MCL is based on the running annual average (RAA). Although manganese RAA was not exceeded in October 2020 (0.046 mg/L), LA County removed Well 5 from service to avoid potential MCL violation in the future. The well remains an active source and monitoring for manganese is conducted monthly. The RAA for manganese was exceeded during the first, second and third quarters of 2021. The last sample with manganese concentration exceeding the secondary MCL was in January 2022 with result of 0.54 mg/L.

Well 5 was drilled in 1993 to a depth of 910 feet. Two impervious clay layers were observed during the drilling of this well. The impervious layers are located at depths from 60 to 80 feet bgs and from 120 to 200 feet bgs. The well has a 30-inch diameter conductor casing from ground surface to 50 feet bgs, and 16-inch diameter mild steel casings and screens. Prior to the recent well rehabilitation, the well had louvered screens from 200 to 240 feet and 380 to 510 feet bgs and wire-wrapped screen from 550 to 670 feet and 750 to 890 feet bgs. A copy of the well log is on file with the Division.

The well was initially producing about 3,000 gpm. However, the well's capacity has reduced substantially through the years. By 2019, the well's production rate decreased to about 500 gpm. In August 2019, LA County removed Well 5 from service for rehabilitation. The rehabilitation was completed in June 2020. During the period of rehabilitation, the Liberty Utilities Interconnection was utilized as the main source for the water system.

In September 2019, the LA County hired Pacific Surveys to conduct the video survey for Well 5. The video survey result shows that the screen casings from 200 to 510 feet bgs are slightly plugged up; and from 550 to 845 feet bgs, the screen casings are completely plugged up. The well casing is filled with hard soil materials at 845 feet bgs. The video camera was not able to reach the bottom of the well.

In November 2019, the Spinner Log and Mass Balance Analyses were performed to determine the quantities and qualities of water produce by the aquifers. The Spinner Log Analysis indicates higher production and higher velocity are observed from aquifers between 200 and 450 feet bgs. The Mass Balance Analysis indicates that manganese concentrations in the water from aquifers between 250 and 520 feet bgs are lower than the water from aquifers between 520 and 845 feet bgs. Manganese concentrations between 250 and 520 feet bgs and between 520 and 845 feet bgs ranged from 0.047 to 0.078 mg/L and from 0.36 to 0.38 mg/L, respectively.

In January 2020, the General Pump, Inc. started the construction to rehabilitate the well. The construction was completed in March 2020. The following modifications were made to the well:

- Abandoned approximately 390 feet of casings and screens in the lower section of the well from 520 feet to 910 feet bgs. The well was backfilled with pea gravel from 530 to 845 feet bgs, and the pea gravel was capped with bentonite pellets from 520 to 530 bgs.
- Provided the well with 12-inch stainless steel liner casings from ground surface to 510 feet bgs. The liner is composed of blank and screen casings. The wire-wrapped screen casings are located from 200 to 240 feet bgs and from 380 to 500 feet bgs. The bottom of the liner at 510 feet bgs is capped with stainless steel bull nose.

The annular space between the original 16-inch casing and the new 12-inch liner was filled with glass beads from 180 to 510 feet bgs and with bentonite cement from the ground surface to 180 feet bgs. The space at the bottom of the well from 510 to 520 feet bgs was also filled with glass beads.

The Video Survey Reports, Spinner Log and Mass Balance Analyses, and As Built Well Liner Diagram are appended in [Appendix I](#).

The LA County also installed a SCADA system and equipped the modified Well 5 with the following:

- Installed the new 100 horsepower variable frequency drive (VFD) pump and motor. The pumping equipment is water lubricated and electrically powered, and remotely controlled by the new SCADA system.
- Installed the new column, tubes, shaft, and suction pipe.
- Installed a water level transducer to monitor the static and pumping water levels via the new SCADA system.
- Replaced the dilapidated section of the discharge piping from the wellhead to the hydro-pneumatic tank with a new pipe.

After rehabilitation, Well 5 can produce a maximum flow rate of 650 gpm. When Well 5 was in service, water from well was chlorinated and pumped through a 10,000-gallon hydropneumatic tank into the distribution system. The well has a manual switch that can accommodate a portable power generator. The Well 5 site is equipped with an 800 Hp diesel engine for the backup power.

An air-release vacuum breaker valve, flow meter, check valve and sampling tap are provided on the well's discharge line. The vent opening of the air-release vacuum breaker valve is screened. The sampling tap is located between the wellhead and check valve and equipped with a vacuum breaker. An adequate surface seal is provided at the base. The well has a pump-to-waste line and the end of the line is screened and provided with an airgap. The Well Data Sheet for the rehabilitated Well 5 along with the specifications for the new pumping unit and water level transducer are appended in [Appendix J](#).

Well 5 is housed in a concrete block building located on a 50 by 100 feet lot. The lot is securely fenced with wrought iron fence and locked gate. The building is lighted and ventilated. The well site is properly maintained and equipped with a burglar monitoring system.

In January 2001, a source water assessment for Well 5 was conducted by the Division. According to the source water assessment report, the PCAs within Well 5's protection

zones include water supply wells. Well 5 is approximately 1,350 feet south from Well 3 and approximately 800 feet northeast from inactive Well 2. Well 3, an active well, is located within 3,947 feet radius, Zone B5, from Well 5. Well 5's PBE was considered moderate. The well is approximately 75 feet from the nearest sewer. With the reduction in the production rate, the sizes of the well protection zones will be smaller than those calculated during the January 2001 assessment.

2.1.2. Inactive Groundwater Source

Well 2: PS Code 1910147-001 (Inactive)

Well 2 has been inactive since July 2017 and **cannot be utilized as a water supply source**. The well was removed from service in December 2015 due to the detection of *E. Coli*. The well is over 78 years old. It has elevated level of bacteriological growth and protozoa. The casing is corroded and has multiple holes in it. The portion of casing from 226 to 228 feet bgs appears to be collapsed. In addition, water from the well also contains elevated level of manganese and 1,4-dioxane exceeding the MCL of 0.05 mg/L and NL of 0.001 mg/L, respectively. In July 2017, the well was physically disconnected from the distribution system. The electrical power source was disconnected and the gate valve along the discharge line to the hydropneumatic tank was removed. A blind flange was installed on the discharge line.

Because Well 2 cannot be activated, the well must be properly destroyed. Suburban WS must plan to destroy the well to prevent the well from becoming a conduit of groundwater contamination.

2.1.3. Active Interconnection

Liberty Utilities Interconnection (PS Code 1910147-010)

The Liberty Utilities Interconnection is currently Sativa's main source of supply. The interconnection is situated at the southwestern side of the Sativa's service area in the corner of N. Paulsen Avenue and W. 137th Street. The one-way 8-inch metered interconnection is capable of delivering up to 1,500 gpm of water from Liberty Utilities at minimum pressure of around 52 psi. It is connected to Liberty Utilities' 12-inch water mains along W. 137th Street.

The interconnection consists of an 8-inch octave ultrasonic water meter and an 8-inch one-way pressure reducing/pressure sustaining Cla-Val valve. The Cla-Val has a check valve built-in feature to prevent backflow. It is housed inside a polymer concrete vault with torsion assist polymer concrete cover and padlock. The vault is installed below ground surface and located within the street right of way. Liberty Utilities maintains the interconnection. Liberty Utilities will conduct periodic testing of water meter to ensure water meter is measuring and recording within 5 percent error. The interconnection drawing and layout is attached with this report ([Appendix K](#)).

This interconnection serves as a temporary active water supply source for the Sativa water system. Liberty Utilities will provide a reliable and uninterrupted source of water to the Sativa water system, contingent upon meeting the conditions set forth in the Agreement. According to the Agreement, Liberty Utilities' obligation to supply water to the Sativa water system is subject to the following conditions: (1) the availability of such water to Liberty Utilities; (2) the ability of both water systems' distribution facilities to deliver such water through the interconnection; and (3) Liberty Utilities' determination, at its sole discretion, that the supply of such water will not have an adverse economic impact on, or result in the impairment of, or jeopardize Liberty Utilities' water system, its customers, or its commitments to third parties.

2.1.4. Emergency Interconnection

The Sativa water system has a 6-inch one-way metered emergency connection with the City of Compton, with rated capacity of 900 gpm. This emergency connection is manually operated.

2.1.5. Adequacy of Supply

Section 64554, Title 22 of the CCR, California Waterworks Standards mandates a public water system to have the capacity to meet the system's maximum day demand (MDD) at all times. Sativa water system currently relies on 100 percent of its supply from Liberty Utilities Interconnection. The interconnection can deliver up to 1,500 gpm (2.16 MGD). The highest daily usage recorded during the period from 2012 to 2021 was 0.98 MGD (in 2016, 817.31 gpm). **The interconnection is adequate to meet the MDD.**

Section 64554 (a) (1) of the *California Waterworks Standards* states that "For systems with 1,000 or more service connections, the system shall be able to meet four hours of peak hourly demand (PHD) with source capacity, storage capacity, and/or emergency source connections". Using the peaking factor of 1.5, times the average hourly consumption during the maximum demand day (0.041 MG per hour), the estimated PHD is 0.06 MG. The amount of water needed to meet four hours of PHD is 0.24 MG. Liberty Utilities interconnection can produce up to 0.36 MG in four hours. **The interconnection is sufficient to meet the four hours of PHD.**

It should be noted that the interconnection with Liberty Utilities is only a temporary active water supply source for the Sativa water system. One of the conditions in the agreement with Liberty Utilities specifies that Liberty Utilities, at its sole discretion, can terminate the agreement if it determines that supplying water to the Sativa water system will have an adverse economic impact on, or result in the impairment of, or jeopardize Liberty Utilities' water system, its customers, or its commitments to third parties. In addition, the 12-inch pipeline along the Paulsen Avenue where the Sativa water system connected to is part of the Liberty Utilities Water Main Improvement Project. Liberty Utilities agrees to let the Sativa water system use this pipeline on a temporary basis. Liberty Utilities has indicated from the beginning that

they will need to take this pipeline back when they have completed their system-wide improvement project.

After well rehabilitation, Well 5 production has increased to 650 gpm. However, the well is currently offline, due to elevated level of manganese, and will not be placed back in service until treatment is provided. Well 3 can produce up to 424 gpm. However, the well is old and in poor condition. The combined capacity of Wells 5 and 3 (1,074 gpm or 1.55 MGD) is sufficient to meet the MDD and the four hours of PHD.

The Sativa water system has no storage facility to provide reserve for emergency conditions. The emergency interconnection with the City of Compton can provide 1.3 MGD or up to 0.22 MG in four hours of PHD. **In the event Liberty Utilities decides to terminate the agreement and cease supplying the Sativa water system through the interconnection and Well 5 has not placed back in service, the Sativa water system has to rely upon the City of Compton emergency interconnection. However, the emergency interconnection is only allowed to use in the event of an emergency for a maximum of five consecutive days or 15 days in a year.**

Suburban WS must ensure that Liberty Utilities will continue supply water to Sativa water system through the interconnection until Well 5 is back in service and plan to construct additional source and storage facility. The additional source and storage facility will not be placed on active statuses without receiving a permit from the Division.

2.1.6. Recycled Water

There are no recycled water use sites within the Sativa water system's service area

2.2. TREATMENT FACILITY

2.2.1. Chlorination Systems at Wells 3 and 5

Wells 3 and 5 are each equipped with 12.5 percent sodium hypochlorination system. For precautionary purposes, water produced by the groundwater wells are disinfected before entering the distribution system. The hypochlorination systems installed at the wells are identical.

Description of the Sodium Hypochlorite Chlorination System at each Site

The liquid chlorine is fed by a Stenner SVP Series Digital Peristaltic Metering Pump with a capacity of 17 gallons per day (0.71 gallons per hour) at maximum working pressure of 100 psi (6.9 bar). The pump tubes and valves are made of Santoprene materials. Santoprene is a registered trademark of Exxon Mobil Chemical Company and is NSF/ANSI Standard 61 certified. The specifications of Stenner SVP Series Digital Peristaltic Metering Pump and NSF/ANSI Standard 61 certification for Santoprene are provided in [Appendix L](#).

The chemical injection pump is operated by a time relay that receives a signal from the well pump. When the well turns on, the injection pump relay switch closes to supply electrical power to the injection pump to start the flow of sodium hypochlorite solution. The injection point is at the wellhead discharge line prior to entering the hydro-pneumatic tank. When the well is turned off, the relay switch opens and disconnects the power supply, thus turning off the injection pump.

The sodium hypochlorite solution is stored in a 50-gallon LMI Chemical Solution Tank with a spill containment scale. The tank is made of medium-density linear polyethylene with UV inhibitors and is NSF/ANSI Standard 61 compliant products. The spill containment scale provides containment of chemical spill up to 66 gallons and weighs the amount of chemical leftover in the chemical solution tank. A digital display equipment is connected to the scale and shows the weight of chemical solution in the tank. The data is then transmitted to the SCADA. A stock of 50-gallon chemical solution will be available on hand in each site. The specifications and NSF/ANSI Standard 61 certification for of LMI Chemical Solution Tank is appended in [Appendix M](#).

Each site is equipped with a HACH 17 chlorine analyzer. The analyzer measures free chlorine residual from the hydro-pneumatic tank effluent and transmits the information to the SCADA.

The chlorination system facilities are installed inside the well house. The building is equipped with a burglar monitoring system. The well sites are properly secured with fences and locked gates.

The configuration of Disinfection Facility Layout, including the Chlorination Data Sheets at Wells 3 and 5 are appended in [Appendix N](#).

Operation of the Hypochlorination Systems

- Well 3

The hypochlorite injection rate at Well 3 will be manually adjusted. The goal is to have a minimum of 1.5 mg/L free chlorine residual at the hydro-pneumatic tank effluent, the entry point to the distribution system. The chlorine residual concentration at the hydro-pneumatic tank effluent will be measured continuously via the on-line chlorine analyzer. The analyzer is connected to the SCADA system. When chlorine residual is out of the targeted range, the operator will adjust the hypochlorite injection rate to meet the target.

- Well 5

The hypochlorite injection rate at Well 5 is automatically adjusted via the PLC for the well's VFD. The controls for the well's VFD are all local with Failsafe SCADA Off Commands for both the well and the chlorine injection pump. Similar with Well 3, the goal is to have a minimum of 1.5 mg/L free chlorine residual at the hydro-pneumatic

tank effluent. The chlorine residual concentration at the hydro-pneumatic tank effluent will be measured continuously via the on-line chlorine analyzer. The data from the analyzer is then transmitted to the SCADA system. The chlorine residual is adjusted through the VFD speed loop. The speed of the motor is used to control the injection rate of the chlorine residual pump. The chlorine dosing is adjusted through the VFD speed analog loop settings. All analog data, system pressures, chlorine weight, chlorine residual, motor speed, and flow are reported back into the SCADA system and recorded.

Metering Pumps Capacity Evaluation

In addition to be able to meet the water system's minimum residual goal at the entry point to the distribution system, the metering pump should be sized to have the capacity to provide a minimum chlorine residual of 1.0 mg/L in the distribution system during an emergency, such as a significant rise in bacteriological count. The dosing capacity of at least 2 mg/L is recommended. As shown in the calculations below, the chlorine metering pumps for Wells 3 and 5 are adequately sized.

- Well 3 – 424 gpm (well's maximum production rate)

Maximum Chlorine Dose = $(125,000 \text{ ppm} \times 17 \text{ gal/day}) \div (424 \text{ gpm} \times 1,440 \text{ min/day}) = 3.48 \text{ mg/L}$

- Well 5 – 650 gpm (well's average production flow rate)

Maximum Chlorine Dose = $(125,000 \text{ ppm} \times 17 \text{ gal/day}) \div (650 \text{ gpm} \times 1,440 \text{ min/day}) = 2.27 \text{ mg/L}$

- Well 5 – 699 gpm (pump maximum operating capacity)

Maximum Chlorine Dose = $(125,000 \text{ ppm} \times 17 \text{ gal/day}) \div (699 \text{ gpm} \times 1,440 \text{ min/day}) = 2.11 \text{ mg/L}$

Direct Additives

As shown in Table 4, the sodium hypochlorite solution utilized by the water system is an NSF/ANSI Standard 60 compliant product. The NSF/ANSI Standard 60 certification information for the sodium hypochlorite solution is provided in [Appendix O](#).

Table 4: Chemical Additives

Chemical	Manufacturer	Purpose	NSF/ANSI Standard 60 Certified?
12.5 % Sodium Hypochlorite Solution	Hasa, Inc.	Disinfection	Yes

2.2.2. Treated Water from Liberty Utilities Interconnection

This Interconnection receives system water from the Liberty Utilities – Compton/Willowbrook System. The Liberty Utilities-Compton/Willowbrook System has two active wells, Well 12C and Well 19C and two active connections (CB-9 and CB-50) with the Metropolitan Water District of Southern California (MWDSC). Well 12C can receive either chlorination or chloramination treatment. Well 19C can also receive either chlorination or chloramination treatment. In addition, Well 19C is equipped with the blended phosphate and fluoride addition facilities for manganese sequestration and fluoridation treatment, respectively. Water from CB-9 and CB-50 is fluoridated and chloraminated.

The main source of supply for the interconnection will be coming from Liberty Utilities' Well 12C, located approximately 0.5 mile east from the interconnection. Well 12C was constructed in 2015 and became operational in July 2019. It was subsequently rehabilitated in July 2020 due to odor issue. The well was originally designed to produce 2,500 gpm. After rehabilitation, the production rate has reduced to a maximum of 1,000 gpm. The second closest source is CB-50, which is located approximately 0.8 mile north of Well 12C. CB-50 is capable of delivering up to 4,500 gpm of water.

Liberty Utilities - Compton/Willowbrook system is a groundwater only system most of the time. Chlorination treatment will be provided for both Well 12C and Well 19C under normal operation conditions. However, when the available groundwater source(s) is/ are not adequate to meet the water demand, Liberty Utilities would convert the system to a surface water only system, with chloraminated MWDSC water as the sole source.

The Suburban WS must notify the public served by the Sativa water system, including the dialyses centers, if any, the possibility of receiving chloraminated water. In addition, the Suburban WS must have a notification plan in place to inform the public as soon as possible after learning from Liberty Utilities of the pending conversion to chloraminated water or the presence of chloramines in the water. The Suburban WS must answer questions that the general public and dialyses centers may have. The Suburban WS must ensure that they are informed in a timely manner by Liberty Utilities of the switching of disinfectant residual from chlorine to chloramines. The Suburban WS must provide the Division with a copy of the notification. The Suburban WS must also develop a plan to address the potential water quality issues during the transition period and during the time the system is served with chloraminated water.

2.2.3. Emergency Interconnection

Water from the City of Compton Interconnection receives chlorination treatment.

2.2.4. Proposed Manganese Treatment for Well 5

The engineering plans and specifications of the proposed manganese treatment for Well 5 were prepared by Tetra Tech. The plans and specifications have been reviewed and subsequently revised based on the comments provided by the Division to LA County in April 2021 and March 2022. The revised 100 percent engineering plans and specifications were submitted on August 24, 2022. The Division has reviewed the documents and found acceptable.

The proposed treatment facility will consist of single vessel greensand filtration system, chemical feed system, filter backwash system with reclaimed tanks and pumps, finished water storage tank and booster pumps. The existing 10,000-gallon hydropneumatic tank will be removed from the site. Construction of the treatment facility is anticipated to begin in early 2023. The schematic of the treatment system is appended in [Appendix P](#).

The proposed treatment facility cannot be placed into service until a permit amendment is issued by the Division to the water system. A permit amendment application, along with other documents, must be submitted to the Division to process the permit. Other documents include the Operation, Monitoring and Maintenance Plan, NSF/ANSI Standard 60 certification for the direct additives and Standard 61 certifications for indirect additives (chemicals, materials, lubricants, protective materials, pipe and related products, mechanical devices, etc.) that will result in its contact with the drinking water, including process media, Filtration Data Sheet and CEQA documentation, among others.

2.3. STORAGE FACILITY

The Sativa water system does not have other storage facilities other than the three active 10,000 gallons-capacity hydropneumatic tanks installed at the well sites. Well 3 site has two hydropneumatic tanks operated simultaneously when the well is in operation. Well 5 site has one hydropneumatic tank. The hydropneumatic tank at Well 2 site is offline. It has been disconnected from the distribution system when Well 2 was changed to inactive status.

The three hydropneumatic tanks are identical. The tanks are baffled. The maximum allowable working pressure is 75 psi. The outside diameter of the tank is 88 inches with 3/8-inch shell thickness. The Hydropneumatic Tank Data Sheet is appended in [Appendix Q](#).

Insulators are provided between concrete tank supports and tank surfaces to prevent corrosion due to stray currents. All tanks are equipped with 32-inch diameter steel manhole hatches for cleaning and maintenance. The pressure relief valves release excess air from the tanks. Sight tubes are provided for the tanks. A Mercoid switch at each site maintains the tank pressure between 52 and 65 psi.

The hydropneumatic tanks at Well 3 site are 68 years old. They were constructed in 1952. The hydropneumatic tank at Well 5 site is 29 years old. It was constructed in 1993. Because the tanks are old, a thorough structural and coating inspection should

be done by a specialist in steel tank structure and coating at least once every five years. The tanks were last inspected and cleaned in May 2011. The tanks at the Well 3 site were last coated in July 2011. **The tanks are due for professional inspection.**

Hydropneumatic tanks do not provide much of the storage capacity and cannot be counted on for firefighting. The *Recommended Standard for Water Works* (Ten States Standards, 2012) states “*Hydropneumatic (pressure) tanks, when provided as the only water storage are acceptable only in very small water systems. Systems serving more than 150 living units should have ground or elevated storage... Hydropneumatic tank storage is not to be permitted for fire protection purposes.*” The Sativa water system is currently serving 1,643 service connections.

The hydropneumatic tanks are pressure maintenance facilities. **Facilities without backup storage may lose system pressure in the event of power outage.** The Well 5 site has a portable generator. In the event of power outage, only Well 5 may continue to operate. Well 3 is not equipped with back-up power.

Proposed Storage Tank

Suburban WS has included in their Sativa five-year capital project funding the construction of a 0.29 MG storage tank. Construction of the storage tank is scheduled in 2024. Prior to construction of the tank, Suburban WS must submit to the Division for review and approval the engineering plans and specifications. The tank cannot be placed into service until a permit amendment is issued by the Division to the water system. A permit amendment application, along with other documents, must be submitted to the Division to process the permit. Other documents include NSF/ANSI Standard 61 certifications for joining and sealing materials, protective coatings, pipes, tanks and fittings and any mechanical devices that will result in its contact with the drinking water, Tank Data Sheet and CEQA documentation, among others.

2.4. DISTRIBUTION SYSTEM

2.4.1. Pressure Zones

The Sativa water system has a one pressure zone distribution system. Pressures in the distribution system range from 52 to 65 psi.

2.4.2. Booster Pump Station

The Sativa water system does not have any booster pump station. The water system utilizes three operational hydropneumatic tanks to maintain pressure in the distribution system.

2.4.3. Transmission and Distribution Mains

The wells are connected to the distribution system through the hydropneumatic tanks. The water system does not have any transmission mains. There are no gravity lines in the distribution system. The distribution system consists of approximately 8.5 miles of asbestos cement, cast iron, steel, polyvinylchloride (PVC) and ductile iron (DI) pipes with sizes range from 4-inch to 8-inch diameters. Table 5 summarizes the pipeline Inventory.

Table 5: Distribution System Pipeline Inventory

Material	Amount (%)	Size	Class/Gauge	Comments
Asbestos Cement	75	4 - 6"	Class 150	Good
Steel	3.6	4 - 6"	12 Gauge	Good
Cast Iron	10	4 - 6 "	Unknown	Good
PVC	7	4 - 6"	Class 900	Good
PVC	2.5	8"	PC 165	New
Ductile Iron	1.5	8"	Class 350	New
CML & CMC Steel	0.4	8"	Schedule 20	New

Note: The 12-inch pipeline owned by Liberty Utilities is not included in the table.

Liberty Utilities 12-Inch Pipeline along N. Paulsen Avenue (Temporarily being utilized by the Sativa per the Interconnection Agreement)

In July 2019, Liberty Utilities constructed 620 linear feet of 12-inch water main line along N. Paulsen Avenue. It connects to the 12-inch water main line along W. 137th Street and, subsequently, to the 8-inch Liberty Utilities Interconnection. The 12-inch pipeline along N. Paulsen Avenue is part of Liberty Utilities system-wide water main replacement projects (Liberty Utilities Watermain Improvement Project).

As part of the Agreement, Liberty Utilities allows the Sativa water system to use this pipeline temporarily solely to transmit water from the interconnection to the Sativa service area. The Sativa water system connects to the 12-inch pipeline through a 12-inch tee at the corner of W. 137th Street and three 12-inch by 8-inch tees located at the corners of Hatchway Street, Piru Street and Stockwell Street. The sizes of the pipeline along Hatchway Street, Piru Street, and Stockwell Street are 6-inch, 6-inch, and 4-inch, respectively. Along Paulsen Avenue from Hatchway Street to Stockwell Street, the Sativa water system has an existing 4-inch pipeline.

In early September 2022, LA County was advised by Liberty Utilities that their system-wide pipeline improvement project was near completion. The 12-inch pipeline along 137th Street and N. Paulsen Avenue will be needed by Liberty Utilities soon. All Sativa water system connections to the pipeline should be cut-off by the end of November 2022.

Project Title: Liberty Interconnections and Paulsen Line Modifications

On September 22, 2022, LA County submitted to the Division the pipeline schematic of the proposed 8-inch pipeline along 137th Street from Liberty Interconnection to Paulsen Avenue and along Paulsen Avenue from Hatchway Street to Stockwell Street ([Appendix R](#)).

The new 8-inch pipeline will be constructed along 137th Street from the interconnection to Sativa's existing 8-inch pipeline along Paulsen Avenue. This new pipeline will eliminate Sativa's connection to Liberty Utilities' 12-inch pipeline along 137th Street. Along Paulsen Avenue, Sativa's connections to the Liberty Utilities' pipeline will be eliminated. Sativa will remove the existing 4-inch pipeline from Hatchway Street to Stockwell Street and replaced with the new 8-inch pipeline. The tees that connect to Liberty Utilities' 12-inch pipeline at Hatchway Street, Piru Street and Stockwell Street will be cut-off.

The entire new pipeline will be owned by Sativa. Suburban WS will oversee the construction of the project. Construction was scheduled to begin in October 2022 and targeted to complete by the end of November 2022. Ductile iron (DI) Class 350 pipes will be used in the construction. The DI Class 350 pipe has a pressure rating of more than 200 psi.

Paulsen Avenue Waterline from Hatchway Street to 139th Street

In July 2019, the LA County constructed 650 linear feet of 8-inch pipeline along Paulsen Avenue from Hatchway Street to 139th Street. It connects to the 12-inch tee at the corner of W. 137th Street and to the 8-inch tee at the corner of Hatchway Street. The existing distribution pipelines along Bliss Street, Oris Street, 138th Street and 139th Street connect to this pipeline. Bliss Street, Oris Street, 138th Street and 139th Street have 4-inch pipes. The LA County PW utilized DI Class 350 pipes with pressure rating of 200 psi. The configuration of the 8-inch pipeline is shown in [Appendix S](#).

As part of eliminating any connections to Liberty Utilities pipeline, the 12-inch tee that connects to Liberty Utilities at 137th Street will be cut off.

Lucien Waterline

In July 2020, the LA County constructed 1,181 linear feet of 8-inch pipeline along Lucien Street from South Oleander Avenue to South Largo Avenue. The new pipeline aims to bring enough pressures to the east side of the service area and address the fire flow deficiencies in the surrounding area. In crossing the railroads along South Willowbrook Avenue, 170 linear feet of Cement Mortar Lined and Cement Mortar Coated (CML & CMC) welded steel pipe was used and installed inside a 16-inch steel casing. The rest of the 1,011 linear feet pipeline is made up of C900 PVC pipe, PC 165, DR 25. The configuration of the 8-inch pipeline is shown in [Appendix T](#).

Water Main Separation Requirements

The new pipelines were constructed in accordance with the California Waterworks Standards. A minimum 10 feet horizontal separation and one foot vertically above non-potable pipelines are maintained. When crossing non-potable pipelines, the new water mains were constructed with eight-foot no joint from either side of the crossings. **Suburban WS must continue to ensure that water main separation requirements are satisfied in constructing new pipeline projects in the future.**

Water Lines Hydrostatic Testing and Disinfection

The new pipelines were tested under hydrostatic pressure in accordance with American Water Works Association (AWWA) Standard C600 Section 5.2 using potable water. The test pressure was 150 psi measured at the low point of the pipeline for a duration of two hours. All detectable leaks were fixed, and pipeline re-tested until the pipe was found satisfactory and met the allowable leakage rate.

After pressure testing, the entire pipelines, including all valves, fittings, hydrants, and other accessories were disinfected in accordance with AWWA C651. The chlorination method was to give an initial chlorine dose of 40 to 50 mg/L and a residual of not less than 5 mg/L after 24 hours. Bacteriological samples were collected after disinfection and samples were analyzed by a certified laboratory. The pipelines were placed in service after results of analysis indicated no presence of bacteriological contamination.

2.4.4. Pipeline Improvements/Fire Flow Requirements

The distribution system contains undersized pipes and not able to meet the 1,250 gpm fire flow requirements for single family houses. In March 2019, the LA County contracted Civiltec Engineering Inc. (Civiltec) to run scenarios for four different potential interconnections at each side of the Sativa water system service area. Civiltec modeled the available fire flow at each hydrant under MDD conditions for each of the individual scenarios. For areas that did not meet the fire flow requirement of 1,250 gpm, pipe improvements were iterated until the fire flow requirement was met at each fire hydrant throughout the system. [Appendix U](#) shows the interconnect scenario at west side of the service area (Liberty Utilities – Compton/Willowbrook side). The highlighted pipes are recommended to be upgraded to 8-inch pipe, approximately 11,500 linear feet, to meet the fire flow at each hydrant. **However, the modeled scenario is not the same as the current interconnection set-up for the Liberty Utilities Interconnection. Suburban WS may conduct another study to reflect the current set-up.**

The LA County had made some pipeline improvements in the Sativa distribution system as discussed in Section 2.4.3. It conveyed significant improvements in system pressure. **Suburban WS has planned to make more pipeline improvements in the future. In their five-year capital improvement projects for Sativa, several pipelines in the distribution system will be replaced to increase the flow and**

address the fire flow requirements and the minimum system pressure requirements of 20 psi at the same time.

2.4.5. Dead Ends

The distribution system has ten dead-ends. Six out of the ten dead ends are equipped with hydrants and the other four are equipped with blow-off valves. The operator flushes the dead-end blow-off valves and hydrants once a month. **The Suburban WS must plan to eliminate these dead ends in the future.**

2.4.6. Service Connections

Sativa's service connections are categorized as residential connections, except for one commercial connection. The commercial connection is a mini-grocery store. There are no industrial, institutional, and agricultural connections in the service area. According to the 2019 ARDWP, 1,550 service connections are made of copper, 87 are made of galvanized steel and the rest are made of PVC. There is no lead service line or fittings. **The service connections are not metered and some of the shutoff valves are located within the property lines of the customers.**

The Division encourages all public water systems to take steps now to conserve the water. All public water systems should keep records of water system production and delivery activities through metering at the source and customer connections. All public water supply systems that do not have customer meters and effective metered rates are encouraged to take the steps needed to obtain the necessary funds to install meters and adopt metered rates. **The Suburban WS has included the service replacements and metering of all service connections in their five-year improvement plan for Sativa water system. CPUC's approved capital plan includes a project to install meters on all service connections by the end of 2023.**

2.5. WATER QUALITY ASSESSMENT

2.5.1. Raw Water (Active Sources)

Wells 3 and 5 withdraw water from the confined aquifers in the Central Basin.

2.5.1.1. Bacteriological

Wells 3 and 5 are sampled monthly for bacteriological analysis. The Clinical Laboratory of San Bernardino, Inc. analyzes the samples using Colisure Quanti-Tray 200 Method (MPN method). The analytical results are submitted to the Division by the 10th day of the month following the month the wells are sampled. The Division has reviewed the monitoring data available on file. Table 6 summarizes the bacteriological quality of the groundwater wells.

**Table 6. Bacteriological Quality Source Monitoring Summary
(August 2012 – September 2022)**

Year	Record of Total Coliform-Positive	<i>E. Coli</i> Positive
2012 - 2014	None	None
2015	Well 3 ¹ : September 15, October 21 & 23	None
2016	Well 3 ¹ : September 20 & 22	None
2017	None	None
2018	Well 3 ¹ : October 9	None
2019	Well 5 ² : January 15	None
2020	None	None
2021	Well 3 ¹ : November 15 & December 13	None
2022	Well 3 ¹ : January 24 & February 14	None

¹ The well is 78 years old and no annular seal. It has history of sand pumping.

² The well is 29 years old. The well was removed from service in August 2019 for rehabilitation and was placed back in service in July 2020. The well was removed in October 2020 due to elevated level of manganese and has been offline since.

³ Data is from January through September 2022.

The total coliform-positive samples recorded in 2015, 2016, 2018, 2021 and 2022 from Well 3 and in 2019 from Well 5 were not as a result of triggered source monitoring under the federal Groundwater Rule. The wells are sampled monthly for total coliform and *E. Coli* analyses. The water system pumped the well with total coliform-positive result to waste and re-sampled the well. So far, the results of the repeat samples were total coliform-negatives.

2.5.1.2. Title 22 Constituents / Vulnerability Assessment

The Division has developed a monitoring matrix for routine monitoring of Title 22 constituents based on the outcomes of vulnerability assessment. The monitoring matrix is valid for three years. The current vulnerability assessment and monitoring frequency guidelines (VAMFG) for Sativa water system's wells for the first period of the fourth compliance cycle (January 1, 2020 through December 31, 2022) is enclosed in [Appendix V](#). All Title 22 monitoring results must be submitted electronically via electronic data transfer (EDT) process to the Division. Detailed summary of water quality monitoring data for Wells 3 and 5 from the Division's Water Quality Database between January 1, 2011 and September 30, 2022 is enclosed in [Appendix W](#). Table 7 summarizes the monitoring schedules.

Table 7: Summary of Monitoring Schedules

Constituents	Well 3 (1910147_002_002)			Well 5 (1910147_005_005)		
	Monitoring Frequency	Date of Monitoring		Monitoring Frequency	Date of Monitoring	
		Last	Next by		Last	Next by
General Mineral	Once every 3 years	10/2019	10/2022	Once every 3 years	7/2020	7/2023
Secondary Standards ¹	Once every 3 years	10/2019	10/2022	Once every 3 years	7/2020	7/2023
Manganese	Once every 3 years	4/2022	4/2025	Quarterly	7/2022	4 th quarter 2022

Constituents	Well 3 (1910147_002_002)			Well 5 (1910147_005_005)		
	Monitoring Frequency	Date of Monitoring		Monitoring Frequency	Date of Monitoring	
		Last	Next by		Last	Next by
Inorganic ²	Once every 3 years	10/2019	10/2022	Once every 3 years	7/2020	7/2023
Asbestos	Waived ³	10/2016	TBD ³	Waived ³	6/2020	TBD ³
Nitrate (as N) ⁴	Annually	7/2022	7/2023	Annually	7/2022	7/2023
Nitrite ⁴	Once every 3 years	10/2019	10/2022	Once every 3 years	7/2020	7/2023
Perchlorate ⁵	Annually	7/2022	7/2023	Annually	7/2022	7/2023
Radionuclides ⁶	6 years for GA & U. 9 years for Rad-226 &-228	1/2021 (GA & U) 1/2015 (Rad-226 &-228)	1/2027 (GA & U). 1/2024 (Rad-226 &-228)	6 years for GA & U 9 years for Rad-226 &-228	6/2020	6/2026 (GA & U). 6/2029 (Rad-226 &-228)
VOC ⁷	Annually	7/2022	7/2023	Annually	4/2022	4/2023
PCE & TCE	Quarterly (PCE only)	7/2022	4 th quarter 2022	Quarterly	7/2022	4 th quarter 2022
SOC ⁸	2 quarters in one year every 3 years for DEHP ⁹ ; Others are waived.	DEHP ⁹ - 7/2021 & 10/2021. Others - 7/2011	DEHP ⁹ – 3 rd & 4 th quarters 2024. Others – waived	2 quarters in one year every 3 years for DEHP. Others are waived.	DEHP ⁹ - 7/2021 & 10/2021 Others - 6/2020	DEHP ⁹ – 3 rd & 4 th quarters 2024. Others – waived
1,2,3-TCP	2 quarters in one year every 3 years	4/2021 7/2021	2 nd & 3 rd quarters 2024	2 quarters in one year every 3 years	4/2021 7/2021	2 nd & 3 rd quarters 2024

¹ Except manganese for Well 5

² Except asbestos, nitrate, nitrite, and perchlorate.

³ Monitoring is waived during the first period (2020-2022) of the fourth compliance cycle (2020-2028).

⁴ Increase to quarterly monitoring if $\geq \frac{1}{2}$ MCL.

⁵ Increase to quarterly monitoring if \geq DLR.

⁶ GA – Gross Alpha; U – Uranium; Rad-226 – Radium 226; Rad-228 – Radium 228

⁷ Except tetrachloroethylene (PCE) and trichloroethylene (TCE).

⁸ Except 1,2,3-Trichloropropane (1,2,3-TCP)

⁹ DEHP - Di-(2-ethylhexyl) phthalate

General Mineral and Secondary Standards

Wells 3 and 5 produce hard water with total hardness levels ranged from 230 mg/L to 291 mg/L and 210 mg/L to 261 mg/L, respectively. Manganese concentration in the water produced by Well 5 fluctuated from non-detect to 0.34 mg/L. The secondary MCL for manganese is 0.05 mg/L. The first Well 5 sample with manganese concentration exceeding the MCL was collected in August 2000. The revised California Secondary Drinking Water Standards became effective on September 27, 2006. The revised regulations specify that the compliance with the manganese MCL is based on the running annual average (RAA). Prior to the revision, the compliance determination procedures were not specified in the regulations. Although the RAA for manganese in Well 5 had exceeded the MCL for in several quarters from 2000 through 2005, the RAAs have been right at or below the MCL after the adoption of the revised Secondary Drinking Standards in 2006. The RAAs from 2006 through the third quarter of 2018

were below the MCL. The RAA for the fourth quarter of 2018 was 0.0506 mg/L. In 2019, the first and second quarters RAAs were below the MCL.

In August 2019, Well 5 was removed from service for rehabilitation. The results of Spinner Log and Mass Balance Analyses and Testing conducted in the well in November 2019 reveal that the water from the aquifers tapped by the rehabilitated Well 5 contains elevated levels of manganese, and the chance of manganese concentration of Well 5 water exceeding the MCL is high. The well was placed back in service in July 2020. Table 8 summarizes manganese monitoring results for Well 5, after rehabilitation.

**Table 8. Well 5 Manganese Monitoring Results
 (July 2020 – September 2022)**

Sample Date (Month & Year)	Result (mg/L)	Quarterly Average (mg/L)	RAA Mg/L	>RAA?
July 2020	0.039	0.013	0.003	No
August 2020	ND (0)			
September 2020	ND (0)			
October 2020	0.340	0.13	0.036	No
November 2020	0.023			
December 2020	0.027			
January 2021	0.042	0.048	0.048	No
February 2021	0.048			
March 2021	0.053			
April 2021	0.035	0.029	0.055	Yes
May 2021	0.029			
June 2021	0.023			
July 2021	0.043	0.039	0.061	Yes
August 2021	0.0089			
September 2021	0.064			
October 2021	0.083	0.043	0.040	No
November 2021	0.014			
December 2021	0.032			
January 2022	0.054	0.038	0.038	No
February 2022	0.038			
March 2022	0.023			
April 2022	0.045	0.037	0.037	No
May 2022	0.037			
June 2022	0.029			
July 2022	0.016	0.012	0.033	No
August 2022	0.0092			
September 2022	0.0097			

Well 5 was removed from service in October 2020 due to elevated manganese concentration of 0.34 mg/L. The well will remain out of service until manganese treatment is provided. The proposed treatment must not place in service until the Division has reviewed and approved the proposal treatment facility and permit to operate the facility is issued to the water system. Suburban WS must work with WRD in providing manganese treatment for Well 5.

Inorganic Chemicals

Arsenic, barium, and fluoride have been detected in Wells 3 and 5, but the concentrations are below their respective MCLs. Aluminum and total chromium have also been detected in Well 3, but the concentrations are below their respective MCLs.

Wells 3 and 5 are not considered vulnerable to asbestos contamination, based on available data published by USGS. All asbestos samples collected from the wells have the results of non-detects. Wells 3 and 5 were last sampled for asbestos in October 2016 and June 2020, respectively.

The initial monitoring requirements for perchlorate had been completed for both wells. Analytical results of the initial and subsequent monitoring were all non-detects. The wells were last sampled for perchlorate in July 2021, with results of non-detects. Therefore, perchlorate monitoring frequency is annually for the wells.

Nitrate/Nitrite

Nitrate has been detected in the water produced by Well 3, but the concentrations have remained below half of the Nitrate MCL of 10 mg/L, as nitrogen. Nitrate has not been detected in Well 5. The last nitrate samples collected from Wells 3 and 5 was on July 19, 2021. The results were non-detect. Therefore, nitrate monitoring frequency is annually for both wells. Nitrite has not been detected in both wells. Therefore, nitrite monitoring frequency for Wells 3 and 5 is once every three years.

Radionuclides

The Initial monitoring for radionuclides had been completed for both wells. Gross alpha and uranium were detected in the wells, but the concentrations were below their respective MCLs. Radium-226 (Rad-226) and radium-228 (Rad-228) have not been detected. Monitoring frequency for a radionuclide with concentration less than the DLR is every nine years. Monitoring frequencies for a radionuclide with concentration above the DLR but equal to or below half the MCL is every six years and concentration above half the MCL to MCL is every three years. The gross alpha and uranium concentrations for Well 3 and 5 are above the DLR, but below half their respective MCLs. Therefore, the Suburban WS must monitor both wells for gross alpha and uranium once every six years and once every nine years for Rad-226 and Rad-228.

Volatile Organic Chemicals (VOC)

Because Wells 3 and 5 are located in the Central Basin with known PCE and TCE plumes, the wells must be monitored for these constituents quarterly. PCE has been detected in the wells. Thus far, PCE sampling results for both wells remained below the MCL. The wells were last sampled for PCE and TCE on April 18, 2022. PCE was detected in Well 3 with concentration of 0.00081 mg/L. PCE was not detected in Well 5.

The last PCE detection in Well 5 was in October 2017. So far, TCE remains not detected in both wells.

Synthetic Organic Chemical

According to 2020 – 2022 VAMFG, the wells are not considered vulnerable to contamination by SOC's other than di (2-ethylhexyl) phthalate (DEHP) and 1,2,3-TCP. The Division has waived the monitoring requirements for all other SOC's for the 2020-2022 compliance monitoring period. The monitoring frequency for DEHP is two quarterly samples in one year within the current compliance monitoring period. The wells were last sampled for DEHP in 2021. The results were all non-detects.

In December 2017, the MCL for 1,2,3-TCP was established. The initial 1,2,3-TCP monitoring for 1,2,3-TCP were completed for both wells in 2018. The results were all non-detects. Subsequent monitoring collected from Wells 3 and 5 were also non-detects. Therefore, 1,2,3-TCP monitoring frequency is two quarterly samples in one year within the current compliance monitoring period for both wells. The wells were last sampled for 1,2,3-TCP in 2021. The results were all non-detects.

Unregulated Chemicals

Monitoring requirements for unregulated chemicals have been completed for the wells. The monitoring consisted of two consecutive samples five to seven months apart in a single year were successfully completed in October 2011 for boron, hexavalent chromium, vanadium, and dichlorodifluoromethane (freon 12).

In November 2010, the notification level (NL) for 1,4-dioxane was established at 0.001 mg/L. The wells have 1,4-dioxane concentrations above the NL. Quarterly samples are collected from the wells. The wells were last sampled for 1,4-dioxane on July 19, 2022. Both wells were detected for 1,4-dioxane with concentrations of 0.0012 mg/L for Well 3 and 0.0012 for Well 5.

2.5.2. Distribution System Water Quality Monitoring

2.5.2.1. Bacteriological

Revised Total Coliform Rule

The revised TCR (rTCR) became effective on July 1, 2021. The minimum number of required samples under the revised TCR is eight per month based on the population and the number of service connections served by Sativa water system. The water system's approved Bacteriological Sample Siting Plan (BSSP) dated June 2016, specifies the collection of four routine total coliform samples per week (Tuesdays) from the distribution system. Therefore, at least 16 samples are collected each month by the water system, greater than the minimum of eight samples required by the rTCR.

Table 9 lists the locations of the routine and repeat sample sites and Table 10 summarizes the distribution system bacteriological monitoring results

Table 9: Routine and Repeat Sample Sites

Routine	Repeat Sample Sites	
	Upstream	Downstream
Site 1 - 730 139 th Street	719 139 th Street	738 139 th Street
Site 2 - 2016 Lucien Street	2036 Lucien Street	2012 Lucien Street
Site 3 - 13122 Largo Street	13126 Largo Avenue	13103 Largo Avenue
Site 4 - 2315 Bliss Street	2311 Bliss Street	2325 Bliss Street

**Table 10: Bacteriological Quality Compliance Monitoring Data
 (January 2012 – September 2022)**

Year	Required Number of Routine Samples	Number of Samples Tested	Number of Samples TC Positive (Month)	Number of Routine Samples <i>E. Coli</i> Positive (Month)	Number of <i>E. Coli</i> + from Routine & Repeat Samples (Month)	TC MCL or <i>E. Coli</i> MCL Compliant?
2012	208	208	0	0	0	Yes
2013	208	208	0	0	0	Yes
2014	208	212	0	0	0	Yes
2015	208	208	0	0	0	Yes
2016	204	204	0	0	0	Yes
2017	208	223	1 (February) 1 (July) 1 (August) 1 (September)	0	0	Yes
2018	208	208	0	0	0	Yes
2019	204	212	0	0	0	Yes
2020	204	211	1 (September)	0	0	Yes
2021 ¹	204	208	0	0	0	Yes
2022 ²	156	159	1 (June)	0	0	Yes

¹ rTCR became effective on July 1, 2021.

² January – September 2022

The rTCR includes the new Coliform Treatment Technique requirement, replacing the Total Coliform MCL, and a new *E. Coli* MCL regulatory limit. *E. Coli* MCL is exceeded when (1) *E. Coli*-positive repeat sample following TC-positive routine sample; (2) TC-positive repeat sample following an *E. Coli* positive routine sample; (3) failure to collect all required repeat samples following a *E. Coli*-positive routine sample; (4) failure to test for *E. Coli* when any repeat sample is TC-positive. The Sativa water system has neither exceeded the total coliform MCL nor *E. Coli* MCL

Groundwater Rule (GWR) Amendment to Coliform Sample Siting Plan

The monitoring requirements under GWR has been incorporated into the approved BSSP dated June 2016. The Sativa water system is required to conduct triggered source water monitoring within 24 hours upon being notified by their laboratory that a sample collected for the TCR is total coliform positive. All wells that are in operation

during the time the total coliform positive TCR sample was collected will need to be sampled. The Sativa water system did collect samples from Wells 3 and 5, when a routine sample tested total coliform-positives in February, July, August, and September 2017. The results were total coliform-negatives.

The water system's GWR Amendment to Coliform Sample Siting Plan needs to be updated to reflect the Liberty Utilities Interconnection as an additional source.

2.5.2.2. Lead and Copper Tap Sampling

The Sativa water system is on reduced triennial monitoring for lead and copper. Data from the first and second rounds of standard 6-month monitoring in 1993 through the last annual monitoring round in 2009 have 90th percentile ranks below the action levels (ALs) for lead and copper. The first triennial monitoring was conducted in 2012. Table 11 summarizes the triennial monitoring from 2012 through 2021.

Table 11: Distribution System Lead and Copper Monitoring

Category	Date Conducted	Number of Samples Required	Number of Samples Collected	90 th Percentile Lead (mg/L)	90 th Percentile Copper (mg/L)
1 st Triennial	June 2012	20	24	<0.005	0.160
2 nd Triennial	August 2015	20	23	<0.005	0.260
3 rd Triennial	September 2018	20	23	<0.005	0.410
4 th Triennial	September 2021	20	26	<0.005	0.099

Lead Action Level = 0.015 mg/L; Copper Action Level = 1.30 mg/L

The 90th percentile lead and copper levels did not exceed the ALs in 2012, 2015, 2018 and 2021. The next round of sampling event is due in 2024. The sampling event should take place during the warm months of June, July, August, or September.

If the Sativa must utilize the Liberty Utilities Interconnection while Liberty Utilities relies 100 percent on treated MWDSC water, it will be a major change in water quality. Special water quality parameters sampling and lead and copper tap sampling must be conducted to ensure the switch does not cause adverse impact on lead and copper leaching in the area receiving chloraminated water from the interconnection.

2.5.2.3. Disinfectant Residuals and Disinfection By-Products (DBP)

Chlorine Residuals

Pursuant to Section 64534.4, Title 22 of the CCR, Sativa is required to measure the residual disinfectant levels at the same points in the distribution system and at the same time as total coliform are sampled. Table 12 summarizes the running annual average (RAA) chlorine residual levels from the January 2012 through September 2022. The RAAs are below the MRDL.

Table 12: Chlorine Residual Compliance (January 2012 – September 2022)

Year	Number of Samples Collected	Monthly Averages, Range (mg/L)	Quarterly RAAs, Range (mg/L)	Compliant w/ MRDL?
2012	208	1.22 – 1.34	1.25 – 1.27	Yes
2013	208	1.18 – 1.44	1.29 – 1.38	Yes
2014	212	1.12 – 1.27	1.20 – 1.33	Yes
2015	208	0.91 – 1.14	1.05 – 1.11	Yes
2016	204	0.97 – 1.19	1.09 – 1.12	Yes
2017	223	0.97 – 1.11	1.03 – 1.08	Yes
2018	208	0.83 – 1.45	1.05 – 1.07	Yes
2019	212	0.78 – 1.98	1.07 – 1.21	Yes
2020	211	0.93 – 1.37	1.22 – 1.27	Yes
2021	208	1.00 – 1.35	1.18 – 1.22	Yes
2022 ¹	159	1.24 – 1.46	1.20 – 1.26	Yes

¹ Samples collected from January through September 2022.

Stage 1 DBPR Disinfection Byproducts Monitoring

The water system has completed the Stage 1 Disinfectant and Disinfection Byproduct Rule (DBPR) monitoring in 2013 and moved onto compliance monitoring for Stage 2 DBPR beginning 2014. Under Stage 1 DBPR, and as a groundwater system serving fewer than 10,000 persons, Sativa is required to collect one pair of total trihalomethanes (TTHMs) and haloacetic acids (HAA5) samples once per year per treatment plant during the month of warmest water temperature and at a location representing maximum residence time. The Stage 1 MCLs for TTHMs and HAA5 are 80 µg/L and 60 µg/L, respectively and the compliance is based on system-wide average. The water system collected TTHM and HAA5 samples from two approved sites. Neither MCL was exceeded during Stage 1 DBPR monitoring period.

Stage 2 DBPR Requirements

The Sativa water system is classified as a Schedule 4 system under Stage 2 DBPR. The water system conducted the Initial Distribution System Evaluation (IDSE) standard monitoring in 2008. TTHM and HAA5 samples were collected from two monitoring locations at a frequency of every 90 days. The IDSE monitoring requirement was completed on April 1, 2010. On June 22, 2010, the then SLACWD submitted the IDSE report to the Division. The report was subsequently revised on July 13, 15 and 21, 2010. The revised IDSE report along with the proposed Stage 2 Compliance Monitoring Plan (CMP) dated July 21, 2010 was submitted and approved by the Division on July 22, 2010. The water system has chosen the two sites utilized during the Stage 1 DBPR monitoring as the Stage 2 DBPR Compliance Monitoring Sites. In accordance with the approved IDSE report and Stage 2 CMP, Sativa is required to collect one pair of TTHMs and HAA5 once per year from the two approved sites beginning on July 7, 2014 and every year thereafter. Table 13 summarizes the results of monitoring.

Table 13: Stage 2 DBPR Compliance (2014 – 2022)

Sample Sites	PS Codes	Frequency	Monitoring Results, µg/L		Meets Standard?
			TTHM	HAA5	
Site1–2423 East Bliss Street	1910147-800	Yearly	ND – 22.4	ND - 6.0	Yes
Site2–2045 East 131 st Street	1910147-801	Yearly	ND – 28.3	ND – 8.6	Yes

2.5.2.4. General Physical Parameters

Pursuant to Section 64449.5 (b) (2), *Distribution System Physical Water Quality*, Title 22 of the CCR, community water systems with greater than 1,000 service connections must collect one sample for every four bacteriological samples required per month. Because four routine total coliform samples per week are collected from the Sativa’s distribution system, one sample per week for physical water quality analyses (color, odor, turbidity) must be collected. Starting 2012, one general physical quality sample per week rotating among the four routine sample sites, were consistently collected until April 2018.

In April 2018, a “brown water incident” occurred after flushing activities were conducted by the then SLACWD’s operators. Residents complained about receiving dirty water from their taps. On April 19, 2018, the Division conducted a field inspection and interviewed some residents. Majority of the residents indicated that brown and yellowish water had been an issue since January 2018. The Division collected samples from the four bacteriological sampling sites and a few houses to check chlorine residuals. The chlorine residuals were adequate, with results ranging from 0.72 mg/L to 0.91 mg/L.

On April 23, 2018, another round of sampling was conducted by the Division, along with representatives from the LA County Department of Public Health (DPH). Samples were collected strategically from various houses and analyzed for manganese, iron, color, turbidity, chlorine residuals and total coliforms. Table 14 summarizes the results.

Table 14: Bacteriological, Free Chlorine, Iron and Manganese, and General Physical Sampling Event of April 23, 2018

Constituents	Sample Results, Ranges	
	Division	LA County DPH
Total Coliforms	Absent	Absent
Free Chlorine Residual, mg/L	0.23 – 0.88	Not analyzed
Iron, µg/L	13.1 - 100	11 – 59
Manganese, µg/L	27.1 - 185 ^{1,2}	28 – 75 ¹
Color, Unit	5 - 20 ³	Not analyzed
Turbidity, NTU	0.37 – 2.21	Not analyzed

¹ Above the MCL of 50 µg/L for manganese.

² Four out of the eight sites are above the MCL.

³ Above the MCL of 15 Units for color. Two out of the eight sites are above the MCL.

The Division, therefore, instructed the then SLACWD to sample the four bacteriological sample sites for general physical water quality parameters weekly beginning in May 2018 and cease the flushing activity until appropriate flushing procedures have been

developed. In July 2019, the LA County resumed with the flushing activities using the NO-DES methodology. Also, dead-end flushing has been regularly performed (monthly). Table 15 summarizes the monitoring results from May 2018 through June 2022.

Table 15: General Physical Compliance from May 2018 through June 2022

Year	Month	Total Samples	Color			Odor Range, Unit	Turbidity Range, NTU
			Range, Unit	No. ≥3.0 Units	No. ≥MCL		
2018	May	20	5.0 – 10.0	20	0	1 - 2	0.4 – 1.2
	June	16	5.0 – 10.0	16	0	1 - 2	<0.1 – 0.6
	July	20	<3.0 – 20.0¹	19	1	1 - 2	0.2 – 0.6
	August	16	<3.0 – 10.0	9	0	1 - 2	<0.1 – 0.6
	September	16	<3.0 – 7.5	4	0	1	<0.1 – 0.3
	October	20	<3.0 – 5.0	3	0	1	<0.1 – 0.4
	November	16	<3.0 – 10.0	10	0	1 - 2	<0.1 – 0.5
	December	16	<3.0 – 15.0	3	1	1	<0.1 – 3.0
2019	January	20	<3.0	0	0	1	<0.1 – 0.3
	February	16	<3.0 – 15.0	7	1	1 - 2	<0.1 – 1.9
	March	16	<3.0 – 10.0	8	0	1 - 2	<0.1 – 0.8
	April	20	<3.0 – 20.0¹	8	1	1 - 2	<0.1 – 1.7
	May	1675	<3.0 – 25.0¹	4	1	1	<0.1 – 1.6
	June	16	<3.0 - 10	4	0	1 - 2	<0.1 – 1.1
	July	20	<3.0 – 10.0	6	0	1	<0.1 – 1.2
	August	16	<3.0 – 30.0¹	7	1	1	<0.1 – 5.2²
	September	16	<3.0 – 5.0	1	0	1 - 2	<0.1 – 0.3
	October	20	<3.0 – 5.0	3	0	1 - 2	<0.1 – 0.3
	November	16	<3.0 – 5.0	2	0	1 - 2	<0.1 – 0.4
	December	20	<3.0	0	0	1 - 2	<0.1 – 0.4
2020	January	16	<3.0 – 5.0	1	0	1 - 2	<0.1 – 4.3
	February	16	<3.0	0	0	1 - 2	<0.1 – 0.4
	March	20	<3.0	0	0	1	<0.1 – 0.4
	April	16	<3.0	0	0	1	<0.1 – 0.6
	May	16	<3.0 – 5.0	1	0	1 - 2	<0.1 – 0.3
	June	20	<3.0	0	0	1	<0.1 – 0.5
	July	16	<3.0	0	0	1	<0.1 – 0.3
	August	16	<3.0 - 25¹	8	1	1	<0.1 – 3.2
	September	20	<3.0 - 10	11	0	1	<0.1 – 1.0
	October	16	<3.0 – 7.5	9	0	1 - 2	0.1 – 0.7
	November	16	<3.0 – 7.5	10	0	1 - 2	<0.1 – 1.3
	December	20	<3.0 – 7.5	5	0	1	<0.1 – 0.4
2021	January	16	<3.0 – 7.5	10	0	1 - 2	0.1 – 0.6
	February	16	<3.0 – 7.5	3	0	1 - 2	<0.1 – 0.6
	March	20	<3.0	0	0	1	<0.1 – 0.47
	April	16	<3.0	0	0	1	<0.1 – 0.55
	May	16	<3.0 - 5	1	0	1	<0.1 – 1.0
	June	16	<3.0 – 10	5	0	1	<0.1 – 0.32
	July	16	<3.0 - 5	3	0	1	<0.1 – 0.44
	August	20	<3.0 – 7.5	4	0	1	<0.1 – 0.72
	September	16	<3.0 – 7.5	3	0	1 - 2	<0.1 – 0.7
	October	16	<3.0 - 5	1	0	1 - 2	<0.1 – 0.51
	November	20	<3.0 - 10	4	0	1 - 2	<0.1 – 1.9

Year	Month	Total Samples	Color			Odor Range, Unit	Turbidity Range, NTU
			Range, Unit	No. ≥3.0 Units	No. ≥MCL		
2022	December	16	<3.0 - 15	8	0	1 - 2	<0.1 – 1.4
	January	16	<3.0	0	0	1	<0.1 – 0.66
	February	16	<3.0	0	0	1	<0.1 – 0.56
	March	20	<3.0 - 5	1	0	2	0.17 – 0.86
	April	16	<3.0	0	0	1	<0.1 – 0.68
	May	20	<3.0 - 5	1	0	1	<0.1 – 0.80
	June	16	<3.0	0	0	1	<0.1 – 0.83
	July	16	<3.0	0	0	1 - 2	<0.1 – 0.51
	August	20	<3 - 5	1	0	1	<0.1 – 0.67
	September	16	<3 - 10	2	0	ND - 1	ND – 0.36

¹ Above color MCL of 15 Units.

² Above turbidity MCL of 5 NTU.

The above table shows discoloration of water was system-wide between May and July 2018. Beginning in August 2018, discoloration of water gradually decreased. In July 2019, the NO-DES flushing method was utilized by the LA County to flush the distribution system. The general physical quality of water had improved until August 2020.

In August 2020, the number of samples with elevated levels for color increased. Color was detected in 8 out of 16 samples, with levels ranged from 5 to 25 units. One of the samples exceeded the secondary MCL for color. During this month, the newly rehabilitated Well 5 and the newly constructed 8-inch pipeline along Lucien Street were placed in service. The sample with elevated color exceeding the secondary MCL was from Sample Site 13122 Largo Avenue, which is located downstream of the new 8-inch pipeline. In addition, all samples collected from Sample Site 2016 Lucien Street were detected for color. This site is a block away from Well 5. The increase of the flow and the changes in flow direction may have disturbed the legacy deposits in the pipeline. From September 2020 to September 2022, color was detected in some samples, but none has exceeded the secondary MCL. The highest color concentration was 10 units. Suburban WS continues conducting monthly flushing of the dead-ends.

2.5.2.5. Asbestos Monitoring

About 75 percent of the water system's distribution pipelines are asbestos cement pipes. Sativa is required to collect one sample at a tap served by asbestos cement pipe, under conditions where asbestos contamination is most likely to occur (i.e. low aggressive index), during the first compliance period of the nine-year compliance cycle from the distribution system and analyze the sample for asbestos. In the 2011 – 2019 compliance cycle, asbestos sample was collected in June 2011. The result was non-detect.

On September 8, 2022, Suburban WS sampled 2423 Bliss Street for aggressive index (AI) and the result was 12.5. Because the result for AI was more than 11.5, Sativa

water system is waived to monitor for asbestos during the 2020 – 2022 compliance period.

2.5.3. Consumer Confidence Report

Section 64480(a), Chapter 15, Title 22 of the CCR requires that water suppliers to distribute an annual report on the water quality of the water served to each of their customers by July 1st of every year. The Consumer Confidence Report has been distributed via mail to the water system's consumers by July 1st every year. The reports for 2018 through 2021 are also posted in the LA County website. The reports have been submitted and uploaded to the Division via the Electronic Annual Reporting System.

2.6. OPERATION AND MAINTENANCE

Suburban has developed an operation and maintenance plan, the Water Systems Operations and Management Plan dated June 2022 for Sativa Water System. The plan discusses the operation, maintenance and management of the water system's facilities (sources and its equipment, treatment facilities, distribution system facilities, SCADA system and instrumentation), water quality monitoring, flushing of dead-ends, water main leaks detections and repairs, valve exercises, among others.

2.6.1. Personnel and Operator Certification

Pursuant to Section 64413.3 of the Operator Certification Regulations, the Division classified the water system as a D2 system ([Appendix X](#)). The Chief Operator must possess a D2 or higher certification and the Shift Operator must possess a D1 or higher certification. For the disinfection facilities for which no *Giardia* or Virus reduction is required, the water system is required to utilize either certified distribution operators or certified treatment operators that have been trained to operate these facilities.

Suburban WS has 25 certified operators with proper certifications. Four operators are designated to operate and maintain the Sativa water system. Mr. Gregory Galindo, Suburban WS' Vice President for Field Operations, is Sativa's Chief Operator. He possesses a grade D4 and grade T4 distribution and treatment certifications, respectively. Mr. Michael Rodriguez, Suburban WS' Field Services Manager, is Sativa's Field Supervisor. He possesses a grade D2 and T2 distribution and treatment certifications, respectively.

Suburban WS provides its employees multiple types of training, including weekly safety tailgates, annual safety training, continuing education trainings, among others. Management and other trainings are provided through various training providers. All employees have access to take courses through Fred Pryor online training applications.

2.6.2. SCADA

The Sativa water system is equipped with SCADA system. It controls or monitors the operation of wells and associated chlorination facilities ([Appendix Y](#)). Suburban WS will monitor and maintain the SCADA system. SCADA will be continually monitored and readings that do not fall within normal ranges will be investigated. SCADA equipment will be visually inspected daily. At least weekly, instrument readings will be compared to a field reference measurement. If the instrument measurement does not match, repair or calibration will be performed. Any loss of communication with the facilities (Office, Wells 3 and 5, Liberty Interconnection) will be investigated and rectified promptly. Suburban WS plans to make improvements on SCADA system in the future.

2.6.3. Facility Inspection and Maintenance Program

All well sites, including the office site, are properly secured with fences and locked gates to prevent unauthorized access. All sites are equipped with the burglar monitoring systems.

The operators will check the well sites daily. The routine check includes the visual inspection of (1) well sites for any signs of vandalism; (2) wells for wellhead, sampling tap, flowmeters, pumping equipment and lubrication conditions; (3) chlorination facilities for chemical pump and injection point conditions, and chlorine supply tanks for solution levels, any signs of leaks or spills, and (4) hydropneumatic tanks conditions, among others. The well sites are provided with log sheets for the well, disinfection facility, and hydropneumatics tank. The operator that performs the inspection will fill out the respective log sheets with the findings including the water meter reading, electric meter reading, chlorination feed rate reading, chlorine tank solution level and chlorine usage, on-line analyzer reading, lubricator condition, unusual test results and any mechanical problems, among others.

The operator will perform daily chlorine residual test with a Hack pocket colorimeter using the DPD method at downstream of the chlorine injection points to check if proper chlorine dose rate is applied.

Hydropneumatic Tanks

The water system has a hydropneumatic tank inspection and maintenance program. On a daily basis, the operators will check and record (1) leaks around water piping, the tank, and fittings; (2) leaking air from the tank; (3) air-to-water ratio (water level in the tank) by visually checking the sight tube; (4) presence of sediments in the tank by visually checking the sight tube; and (5) control systems and alarms to ensure that they are operating properly and protected from moisture and corrosion.

On a weekly basis, the sanitary and structural condition of the basic tank components will be checked in more detail that includes (1) pressure fluctuation during a cycle (actual cut-in and cut-out pressures); (2) number of pump cycles per hour; (3) condition

of paint on the exterior of the tanks and signs of corrosion; and (4) condition of tank supports to insure that the tanks are adequately secured to the floor.

The hydropneumatic tanks are disinfected and sampled for bacteriological quality in accordance with AWWA procedures and standards, when placed back to service after repairs and routine maintenance.

2.6.4. Cross-Connection Control Program

Sativa has a cross-connection control ordinance adopted on January 1, 1987. The ordinance was approved by the Division on May 17, 1988. The ordinance explains in detail the purpose and type of protection required for different types of hazards, prevention device installation, and the testing and maintenance. Ms. Rosalba Magana is Suburban WS Cross-connection Control Specialist. She obtained her certification (Certificate No. 02133) from American Water Works Association. It will expire in June 2024.

In October 2012, the Cross Connection and Water Pollution Control Program staff from the Los Angeles County Department of Public Health (LACDPH), Bureau of Environmental Protection conducted a cross-connection survey. The results of the survey indicated that 20 homes have active irrigation sprinklers systems with no backflow protection and 21 homes have pressure type vacuum breakers (PVB). The 20 homes were notified to correct and abate the backflow hazard. The 21 homes with PVBs were given the options to either convert their PVBs to a non-testable atmospheric type of vacuum breaker or have their PVBs tested on annual basis. Reportedly, all the 41 homes have installed the non-testable devices.

The airgaps at the end of the pump-to-waste lines for Wells 3 and 5 are maintained properly.

2.6.5. Customer Complaint Program

Because of the brown water incident in 2018, Sativa has established a customer complaint program that will respond to the customers' concerns in a timely manner. Complaints are received at the administration office and the customer's information such as name, address, and telephone number, etc. are recorded. Work orders are generated for those requiring the follow-up investigation.

Most numbers of complaints received from 2018 through 2021 are for color. All complaints received were investigated and handled accordingly. Between 2019 and 2020, the LA County conducted several community outreaches to keep the customers well informed of the status of projects designed to address deficiencies listed in the Division's compliance order and to gain the trust of the customers. Table 16 summarizes the complaints reported from 2018 through the end of 2021.

Table 16: Complaints Reported (2018 – 2021)

Year	2018	2019	2020	2021	Description of Cause
Taste and Odor	1	0	3	1	Stagnant water in the customers' internal plumbing. Customers were advised to flush their faucets.
Color	190	155	28	52	Discoloration (brown water) occurred each time the distribution system was flushed. Customers were advised to flush their faucets before use.
Turbidity	2	2	0	0	Presence of sediments in the customers' internal plumbing.
Pressure (High or Low)	3	1	5	0	Low pressures were due to customers deteriorated and clogged internal plumbing.
Water Outages	0	0	4	2	Temporary disconnection due to service connection repairs.
Total	196	158	40*	55*	*Complaints have decreased significantly in 2020 and 2021

Source: 2018-2021 eARs

In 2019, there were 13 locations with brown water complaints. Staff checked the locations and found the discolorations were due to customers' old and deteriorated internal plumbing systems. Staff checked water quality at water system side pipeline and found the water was clear.

Suburban WS will respond to the customer complaints in a timely manner. If customers notify the office or field personnel about a potential leak, field staff will investigate to determine if repairs are required.

2.6.6. Emergency Response Program

Suburban WS has submitted the Water System Emergency Response Plan dated May 2022. The plan has been updated to include Sativa water system.

2.6.7. Emergency Chlorination Plan

The Division has on file the water system's Emergency Chlorination Plan dated April 2021 prepared by LA County PW. **Suburban WS should update the plan to reflect all changes in the water system (e.g., ownership, emergency contact list, etc.).**

2.6.8. Water Quality Emergency Notification Plan

The Water Quality Emergency Notification Plan (WQENP) for the Sativa water system has been updated to reflect Suburban WS emergency contacts.

2.6.9. Valve Maintenance Program

The water system has a valve maintenance program that was established in 2015. The goal is to exercise all valves yearly. There are currently approximately 214 valves ranging from 4-inch to 8-inch in size in the distribution system. The pressure zone is divided into quadrants. The locations of the valves including valve number, address and quadrant location, size, type, number of turns and date of inspection are recorded, and their locations are indexed. In the event of an emergency, the operator can isolate portions of the distribution system. Table 17 summarizes the valve exercising records for the period of 2012 through 2021.

Table 17: Valve Exercising Records (2012 – 2021)

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Number of Valves	97	109	109	111	111	111	181	194	214	214
Total Number Exercised	97	36	95	111	111	111	12	194	214	0

Source: 2012-2021 eARs

Ideally, all valves should be exercised every year. As shown in the above table, all valves were exercised in 2015, 2016, 2017, 2019 and 2020, except in 2018 when only 12 out of 181 valves were exercised. In 2021, none of the 241 valves were exercised. In the 2021 eAR, the frequency of valve exercising was reported to be on as needed basis instead of yearly. **During the Sanitary Survey conducted in August 2022, the Division found that Suburban WS has not exercised any valves since taking the operations of Sativa water system in June 2021. In the Division's letter of September 30, 2022, Suburban was directed to exercise all the 214 valves by March 30, 2023, and each year thereafter. In Suburban WS' letter of October 14, 2022, Suburban WS indicated to exercise all valves by the due date, and annually for the next three years and reduce the frequency depending on the conditions of the valves.**

Suburban WS must replace all dilapidated and malfunctioning valves. Any valve that does not completely close or open must be replaced. Each time a valve is replaced, the operator must record the valve information including the valve number, location, manufacturer, type, size, valve depth, valve box type, direction of operation, date operated/exercised, number of turns to close or open the valve, position in the distribution system (open or closed), the date the valve was installed and the employee who did the installation.

2.6.10. Flushing Program

Due to the brown water incident in 2018, the LA County has evaluated the appropriate flushing method applicable for the Sativa water system. In July 2019, after securing the supply from the Liberty Utilities Interconnection, flushing activities were resumed. The LA County utilized an unconventional flushing method, the Neutral Output Discharge

Elimination System (NO-DES) flushing technology and conducted the required water quality monitoring during flushing. NO-DES flushing activities are done on weeknights from 10 o'clock in the evening to 5 o'clock in the morning of the following day to minimize the impact to customers. The LA County personnel oversee the NO-DES flushing operation and the operators are on standby to conduct localized flushing if a brown water spike occurs. Prior to conduct of flushing activities, customers are properly notified. If brown water occurs, customers are advised to flush their faucets and garden hose and call the Sativa operators for assistance. Bottled water were provided when requested. So far, there were no brown water complaints during the NO-DES flushing. Aside from NO-DES flushing, flushing of dead-ends was performed at least once a month. The last NO-DES flushing was conducted in December 2020. The NO-DES Flushing Operation and Monitoring Plan is provided in [Appendix X](#).

The water system has 10 dead-ends in the distribution system, with four dead-ends equipped with blow-off valves and rest are with the fire hydrants. All dead-ends are flushed on a monthly basis. The Division recommends eliminating as many dead-ends as possible by looping the system. Table 18 summarizes the water system's flushing activities.

Table 18: Dead-Ends Flushing Records (2012 – 2021)

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Number of Dead-Ends	6	7	7	7	5	5	8	11	10	10
Total Number Flushed	6	7	7	7	5	5	8	11*	10*	10*

Source: 2012-2021 eARs

Suburban WS plans to continue flushing all dead-ends on a monthly basis, until all old, dilapidated, and undersized pipes are replaced. So far, the number of customer complaints for discoloration has reduced since regular flushing is implemented.

2.6.11. Water Main Repairs and Disinfection Program

Suburban WS will perform the main disinfection in accordance with AWWA Standards using the AWWA C651. Chlorine residuals and bacteriological tests will be conducted after water main installation and repairs. The water main will be placed into service after acceptable water quality is obtained.

Suburban WS will respond to a water main break and coordinate the repairs promptly. After each repair, staff will ensure that any aesthetic water quality is addressed. All repair activities will be recorded (location, type of repair, size of pipe, valves isolated).

2.6.12. Electronic Annual Report

The LA County PW has submitted electronically the Annual Reports to the Drinking Water Program for 2018 and 2021 on a timely manner. Suburban WS must submit the EAR yearly and on a timely manner.

2.6.13. California Environmental Water Quality Act

The change of ownership does not require CEQA process.

3. APPRAISAL OF SANITARY HAZARDS AND PUBLIC HEALTH SAFEGUARDS

The LA County was the designated successor by LA LAFCO of Sativa water system previously owned and operated by SLACWD. Since taking over the operation of Sativa, the LA County has made many improvements to the water system. However, it will take time and more resources to fully address all the issues listed in Compliance Order No. 04-22-18R-002, such as the source, storage and pipeline capacities to meet the fire flow requirement and the minimum system pressure requirement (20 psi), at the same time.

In June 2021, the LA County contracted Suburban WS to operate the Sativa water system. On August 13, 2021, Suburban WS filed an application seeking authorization from the CPUC to purchase Sativa from LA County. The application was posted on CPUC's calendar on August 18, 2021. No protests or responses were received. The application was approved on April 7, 2022. The decision authorizing the purchase of Sativa by Suburban WS was issued on April 15, 2022.

The decision authorized Suburban WS to (1) integrate the Sativa service area into the Whittier/La Mirada Service Area for ratemaking purposes; (2) establishment of the Sativa Transaction Cost Memorandum Account; (3) establishment of Environmental Improvements and Compliance Issues for Acquisitions Memorandum Account; and (4) establish the Sativa Production Cost Balancing Account. The decision also promotes the CPUC's nine goals set forth in the Environmental and Social Justice Action Plan. Additionally, the acquisition of Sativa by Suburban WS will help promote and improve the safety of the Sativa water system.

Suburban WS is a class A regulated water company which serves a population of approximately 300,000 people in the Los Angeles and Orange Counties. The company has adequate number of operators with the proper grade level to meet the operator certification requirements.

The Liberty Utilities Interconnection is a temporary active source for Sativa water system. Without the Liberty Utilities Interconnection, Wells 3 and 5 cannot meet the PHD. The Sativa water system has to rely upon the emergency interconnection to comply with the requirements of Section 64554 (a) (1), Title 22, CCR. The water system has no storage facility other than the three hydropneumatics tanks. The hydropneumatic tanks do not provide much of the storage capacity and cannot be

counted on for firefighting. The distribution system contains old, dilapidated and undersized pipes. Due to the lack of proper flushing in the past, there are legacy sediment buildup in the pipeline. When triggered, these sediments may release and cause discoloration in the water distributed to customers.

Suburban WS has prepared the five-year capital improvement projects plan that will address Sativa's water system facilities deficiencies. The projects include drilling of new well, construction of storage tank, construction of booster station, replacement of old, dilapidated and undersized pipelines, SCADA system improvements, and water meter installations.

Since Liberty Utilities has indicated the intention to switch to 100 percent imported surface water from MWDSC, which contains chloramines, when groundwater alone cannot meet the system demand the Suburban WS must notify the public served by Sativa, including the dialyses centers, if any, the possibility of receiving chloraminated water as soon as possible. The Suburban WS should also have a notification plan in place to inform the public as soon as possible after learning from Liberty Utilities of the pending conversion to chloraminated water or the presence of chloramines in the water. The Suburban WS must answer questions that the general public and dialyses centers may have.

If Sativa must utilize the Liberty Utilities Interconnection while Liberty Utilities relies 100 percent on treated MWDSC water, it will be a major change in water quality. Special water quality parameters sampling and lead and copper tap sampling must be conducted to ensure the switch does not cause adverse impact on lead and copper leaching in the area receiving chloraminated water from the interconnection. Suburban WS must also develop a transition plan to address the potential water quality issues during the transition period, including the potential lost of disinfectant residuals due to the mixing of chloraminated surface water and chlorinated well water in the system, which may cause bacteriological quality problem. Also, the Sativa water system will be required to meet the minimum residual requirements of the Surface Water Treatment Rule during the time it receives treated surface water. The Sativa's GWR Amendment needs to be updated to reflect the Liberty Utilities Interconnection as an additional source.

Ideally, all valves should be exercised every year. Sativa's valves were last exercised in 2020. Suburban WS should schedule and complete the exercising of all valves by March 30, 2023. All dilapidated and malfunctioning valves must be replaced, including any valve that does not completely close or open.

The water system complies with the direct additives regulations. The water system has adequate flushing programs.

4. CONCLUSIONS AND RECOMMENDATIONS

Issuance of a domestic water supply permit by the Division to the Suburban Water Systems (hereinafter, Suburban WS) as owner of the Sativa water system is recommended subject to the following conditions:

General

1. The Suburban WS shall comply with all the requirements set forth in the California Safe Drinking Water Act, California Health and Safety Code and any regulations, standards, or orders adopted thereunder.
2. The only sources approved for domestic water supply for the Sativa water system are listed in Table 1 and Table 2:

Table 1. Groundwater Sources

Source	Primary Station (PS) Code	Status	Capacity (gpm)
Well 3	1910147_002_002	Active	424
Well 5	1910147_005_005	Active	650

Table 2. Interconnection

Source	PS Code	Location	Status	Capacity (gpm)
Liberty Utilities – Compton/Willowbrook	1910147_010_010	137 th Street & Paulsen Avenue 8" One Way Connection	Active	1,500
City of Compton	1910147_009_009	Oris Street & Willowbrook Avenue 6" One Way Connection	Emergency	900

3. The only approved treatment facilities for Sativa water system are those listed in Table 3:

Table 3. Treatment Facilities

Treatment Plant	Treatment Processes
Wells 3 and 5 Chlorination Facilities	Chlorination for precautionary purposes with 12.5 percent sodium hypochlorite solution.

4. No additions, changes, or modifications to the sources of water supply or water treatment facilities outlined in Conditions 3 and 4 shall be made without prior receipt of an amended domestic water supply permit from the Division.

Inactive Source

5. Well 2 has been inactive for more than five years. The well is no longer viable to use for domestic purposes due to contamination with *E. coli* bacteria. Suburban WS shall plan to destroy the well. The destruction permit and report shall be submitted to the Division.

Water Quality

6. All water supplied by the Sativa water system for domestic purposes shall meet all Maximum Contaminant levels (MCLs) established by the Division. If the water quality does not comply with the California Drinking Water Standards, additional treatment shall be provided to meet standards. The plans and specifications for the proposed treatment facilities shall be submitted to the Division for review and approval prior to construction.
7. The Suburban WS shall monitor all groundwater sources listed in Table 1 in accordance with Title 22, Chapter 15, CCR and the Division's most recent Vulnerability Assessment and Monitoring Frequency Guidelines.
8. Except for bacteriological analyses and constituents without chemical storet numbers, all water quality monitoring results obtained at a certified laboratory shall be submitted to the Division by Electronic Data Transfer using the appropriate Primary Station (PS) Codes. Analytical results of all sample analyses completed in a calendar month shall be reported to the Division no later than the tenth day of the following month.
9. The Suburban WS shall notify the governing body of the local agency in which users of the drinking water reside (i.e. city council and county board of supervisors) when a notification level is exceeded in drinking water that is provided to consumers.

Operator Certifications

10. The distribution system and treatment facilities shall be operated by personnel who have been certified in accordance with Chapter 13, Title 22, CCR, *Operator Certification Regulations*. The chief and shift operator(s) for the Sativa water system's distribution facilities shall have, at minimum, D2 and D1 certifications, respectively. The minimum certification requirements for all disinfection facilities for which no *Giardia* or Virus reduction is required shall either be certified distribution operators or certified treatment operators that have been trained to operate these facilities.

Cross-connection Control Program

11. The Suburban WS shall comply with Title 17, CCR, to prevent the Sativa water system and its facilities from being contaminated by possible cross-connections. The Suburban WS shall maintain a program for the protection of the domestic water system against backflow from premises having dual or unsafe water systems in accordance with Title 17. All backflow prevention assemblies shall be tested annually.

Direct Additives

12. The Suburban WS shall only use additives that have been tested and certified as meeting the specifications of NSF International/American National Standard Institute (NSF/ANSI) Standard 60. This requirement shall be met under testing conducted by a product certification organization accredited for this purpose by ANSI.

Indirect Additives

13. The Suburban WS shall only use chemicals, materials, lubricants, or products that have been tested and certified as meeting the specifications of NSF/ANSI Standard 61 in the production, treatment or distribution of drinking water that will result in its contact with the drinking water, including process media, protection materials (i.e. coating, linings, liners), joining and sealing materials, pipe and related products, and mechanical devices used in treatment/transmission/distribution system, unless conditions listed in Section 64593, Title 22, CCR are met. This requirement shall be met under testing conducted by a product certification organization accredited for this purpose by ANSI.

Active Wells

14. Well 3 does not have an annular seal. Suburban WS shall keep the well site clean and secured at all times to prevent contamination from outside sources and elements. In addition, Suburban WS shall monitor the well for coliform bacteria monthly.
15. Well 5 produces water with elevated level of manganese exceeding the secondary MCL. The well shall not be placed back in service until treatment is provided and permit to operate is issued by the Division. To process the permit, Suburban WS shall submit to the Division the following documents:
 - Permit Amendment Application
 - Operation, Monitoring and Maintenance Plan
 - NSF International/American National Standard Institute (NSF/ANSI) Standard 60 certifications for direct additives and Standard 61 certifications for indirect additives (chemicals, materials, lubricants, protective materials, pipe and related products, mechanical devices, etc.) that will result in its contact with the drinking water, including process media.
 - Completed Filtration data Sheet
 - CEQA Documentation

Chloramines

16. The Suburban WS shall inform the public served by Sativa water system the possibility of receiving chloraminated water. The Suburban WS shall reach out to

kidney dialysis facilities, if any, and home patients to ensure their treatment units can remove chloramines. The Suburban WS shall answer questions that the general public and dialyses centers may have.

17. Since Liberty Utilities has indicated the intention to switch to 100 percent imported surface water from MWDSC, which contains chloramines, when groundwater alone cannot meet the system demand. The Suburban WS shall develop and implement a transition plan to address the potential water quality issues, in case water imported from Liberty Utilities containing chloramines. If the Sativa water system needs to rely on chloraminated water for an extended period, the Suburban WS shall develop a nitrification monitoring and control plan. Special water quality parameters sampling and lead and copper tap sampling shall be conducted to ensure the switch does not cause adverse impact on lead and copper leaching in the area receiving chloraminated water from the interconnection.
18. The Sativa water system shall comply with the minimum residual requirements of the Surface Water Treatment Rule during the time the water system receives treated surface water.

Chlorination Facilities

19. Within **90 days** of receiving this permit, the Suburban WS shall submit to the Division the updated Emergency Chlorination Plan for review and approval. The revised plan shall reflect the current chlorination facilities at Wells 3 and 5.
20. The Suburban WS shall maintain the following daily operation records of the chlorination facilities at Wells 3 and 5:
 - current dosage rate, in mg/L, and chlorine consumption in lbs./day,
 - amount of water treated in each well in gallons per day or MG/day
 - chlorine residuals test results
 - unusual conditions, mechanical problems, emergencies, or unusual test results

Hydropneumatic Tanks

21. The hydropneumatic tanks shall be disinfected and sampled for bacteriological quality in accordance with AWWA procedures and standards, when placed back to service after repairs and routine maintenance.
22. The hydropneumatics tanks shall be professionally inspected at least every five years.

Minimum Pressure Requirement

23. The Suburban WS shall continue to evaluate if the current source, storage and pipeline capacities are adequate to meet the fire flow requirement and the minimum system pressure requirement (20 psi) at the same time; if not, more improvement should be planned.

Water System Operation and Maintenance Plan

24. The Suburban shall record the water production output for each source on a monthly basis. The static and dynamic (pumping) groundwater levels for all wells shall be measured and recorded at a minimum of once a month. Written water production and groundwater level records shall be maintained by Suburban WS for a minimum of ten years and be available to the Division for review when requested.
25. The Suburban WS shall ensure that all water produced from each source is reliably measured to determine total production. The flow meters at each site shall be calibrated annually.
26. The Suburban WS shall notify the Division by telephone immediately upon discovery of any condition judged to create a significant potential or existing health hazard to users. Such conditions include, but are not limited to actual or threatened sabotage, vandalism and/or water outages, which result from inadequate source, storage and/or pumping capacity or any other unplanned loss of system pressure.

Valve Exercises

27. Suburban shall exercise all Sativa water system valves each year and reports submitted to the Division. The first round of valve exercising shall be completed by March 31, 2023.

Consumer Confidence Report

28. Suburban WS shall prepare Sativa water system's Consumer Confidence Report on an annual basis, which must be distributed to customers and a copy provided to the Division by July 1 of each year.

Annual Reports

29. The Suburban WS shall submit an electronic Annual Report to the Division each year, documenting Sativa water system information for the prior year. The report shall be in the format specified by the Division.

APPENDICES

- A. PERMIT AMENDMENT APPLICATION**
- B. COMPLETED STAFF TMF ASSESSMENT REVIEW FORM**
- C. CPUC DECISION AUTHORIZING THE PURCHASE OF SATIVA BY SUBURBAN WS**
- D. SUBURBAN WS FIVE-YEAR CAPITAL IMPROVEMENT PROJECTS**
- E. SATIVA WATER SYSTEM SERVICE AREA MAP**
- F. SCHEMATIC OF THE SATIVA WATER SUPPLY SYSTEM**
- G. PUMP EFFICIENCY TESTS CONDUCTED ON SEPTEMBER 10, 2020 BY SOUTHERN CALIFORNIA EDISON COMPANY FOR WELLS 3 AND 5**
- H. WELL 3 DATA SHEET**
- I. WELL 5 VIDEO SURVEY REPORTS, SPINNER LOG AND MASS BALANCE ANALYSES, AND AS- BUILT WELL LINER DIAGRAM**
- J. MODIFIED WELL 5 DATA SHEET, AND SPECIFICATIONS OF THE NEW PUMPING EQUIPMENT AND WATER LEVEL TRANSDUCER**
- K. LIBERTY UTILITIES INTERCONNECTION LOCATION AND LAYOUT**
- L. SPECIFICATIONS OF STENNER SVP SERIES DIGITAL PERISTALTIC CHEMICAL METERING PUMP AND NSF/ANSI STANDARD 61 CERTIFICATION FOR SANTOPRENE MATERIALS**
- M. SPECIFICATIONS AND NSF/ANSI STANDARD 61 CERTIFICATION FOR LMI CHEMICAL SOLUTION TANK**
- N. CONFIGURATIONS OF DISINFECTION FACILITIES AT WELLS 3 AND 5, AND CHLORINE DISINFECTION DATA SHEETS**
- O. HASA, INC. NSF/ANSI STANDARD 60 CERTIFICATION FOR 12.5 PERCENT SODIUM HYPOCHLORITE SOLUTION**
- P. SCHEMATIC OF THE PROPOSED WELL 5 MANGANESE TREATMENT SYSTEM**
- Q. HYDROPNEUMATIC TANK DATA SHEET**
- R. LIBERTY INTERCONNECTION AND PAULSEN LINE MODIFICATIONS**
- S. SATIVAWATER SYSTEM'S 8-INCH WATER MAINS ALONG NORTH PAULSEN AVENUE**
- T. SATIVAWATER SYSTEM'S 8-INCH WATER MAINS ALONG LUCIEN STREET**
- U. WEST SIDE INTERCONNECT SCENARIO (LIBERTY UTILITIES)**
- V. GROUNDWATER WELLS MONITORING MATRIX: 2020-2022 VULNERABILITY ASSESSMENT AND MONITORING FREQUENCY GUIDELINES FOR WELLS 3 AND 5**
- W. SUMMARY OF MONITORING DATA FROM THE DIVISION'S WATER QUALITY DATABASE FROM JANUARY 1, 1994 TO AUGUST 30, 2020 FOR WELLS 3 AND 5**
- X. SATIVAWATER SYSTEM'S DISTRIBUTION SYSTEM CLASSIFICATION SHEET**
- Y. SATIVAWATER SYSTEM'S SUPERVISORY CONTROL AND DATA ACQUISITION SYSTEM NARRATIVE SHEET**

ATTACHMENT E

LIBERTY UTILITIES (PARK WATER) CORP. - SUBURBAN WATER SYSTEMS

SERVICE AGREEMENT

This Service Agreement ("Agreement") is made and entered into by and between Liberty Utilities (Park Water) Corp., a California corporation ("Liberty Park Water") and Suburban Water Systems, a California corporation ("Suburban") (each a "Party" and, collectively, the "Parties").

RECITALS

WHEREAS Suburban is required by the Division of Drinking Water ("DDW") to have a metered service connection ("Service" or "Interconnection") between Liberty Park Water's water system and Suburban's water system for the sale and delivery of water to Suburban for use in the former Sativa Los Angeles Water District's water system ("Sativa Water System") pending DDW authorization to operate the manganese treatment facility at the Sativa Water System's Well 5;

WHEREAS Liberty Park Water, a public utility engaged in the business of producing, distributing, and selling water to its customers, subject to the jurisdiction of the California Public Utilities Commission, is not obligated by its tariffs or otherwise to furnish or sell water to any person or entity, including Suburban, for resale;

WHEREAS, the County of Los Angeles, as administrator of the Sativa Water System, installed certain isolation valves, meters, and pressure reducing valves that comprise the Interconnection, and has agreed to convey those assets to Liberty Park Water;

WHEREAS Liberty Park Water owns and operates its own water distribution system adjacent to the Sativa Water System;

WHEREAS Suburban anticipates shortly after closing of the Sativa Water System that it will pay for and own an 8-inch pipeline newly installed in Paulsen Avenue, which completely separates the Sativa Water System from Liberty's water system ("the new Paulsen Pipeline") which will provide water to Suburban at the Point of Delivery, (as subsequently defined). WHEREAS the Parties desire to establish a contractual relationship authorizing the provision of water by Liberty Park Water to Suburban to supply the Sativa Water System;

NOW, THEREFORE, for and in consideration of the mutual promises, covenants, and conditions herein contained, the Parties hereto agree as follows:

AGREEMENT

1. Location of the Service

1.1. The Service is to be located on the southwest corner of 137th Street and Paulsen at **1605 N. Paulsen Ave., Compton. CA 90222.**

1.2. Liberty Park Water's obligation to supply water shall be subject to the following: (a) the availability of such water to Liberty Park Water; (b) the ability of the Parties' water distribution systems to deliver such water through the Interconnection described in this Agreement; and (c) Liberty Park Water's determination, at its sole discretion, that the supply of such water will not have an adverse economic impact on, or result in the impairment of, or

jeopardize Liberty Park Water's water system, its customers, or its commitments to third parties.

1.3. Water delivered to Suburban pursuant to this Agreement shall be measured and recorded by a water meter with the capability of measuring the expected range of flow within +/- 5% accuracy.

2. Term and Termination

2.1. This Agreement shall commence on the Effective Date (as defined in herein) and shall continue from month to month unless terminated pursuant to or in accordance with this Agreement.

2.2. Either Party may terminate this Agreement upon giving the other party at least ninety (90) days prior written notice.

2.3. In the event this Agreement is terminated for any reason, the Parties shall promptly make an accounting of water exchanges as of the effective date of termination and payment shall be made.

3. Interconnection and Ownership

3.1. There is one Point of Delivery for the water to be supplied pursuant to this Agreement: The Interconnection located at the southwest corner of 137th Street and Paulsen at 1605 N. Paulsen Ave., Compton, CA 90222.

3.2. Liberty Park Water will own and operate any meters and its associated vaults with respect to the Interconnection.

3.3. Suburban shall be responsible for the cost of maintenance of the Service facilities owned by Liberty Park Water, including the water meter. Such maintenance is to include periodic testing of the water meter. If the periodic testing of the water meter discloses that the water meter was not measuring and recording within the +/-5% range of accuracy, an appropriate billing adjustment will be made upon Suburban being provided a written calculation supporting the adjustment. Liberty Park Water will perform or arrange for all necessary maintenance and testing of the water meter, and Suburban shall reimburse Liberty Park Water for the reasonable cost thereof. The meter accuracy test must be performed no less than two times per year, but no more than four times per year, in Liberty's sole discretion. Suburban will be provided advance notice of such tests, and may elect to have staff present for such tests. Suburban will pay Liberty Park Water for such costs within 30 days after receipt of an invoice and the written test report from Liberty Park Water.

3.4. Suburban will perform or arrange for all necessary maintenance and/or repair of those portions of the Interconnection that it owns as described in Sections 4.1 and 4.2. Suburban will have sole responsibility for the costs of such maintenance and/or repair.

3.5. Suburban's right to use the Interconnection and to receive water from Liberty Park Water's water distribution system shall be subject to the limitations in this Agreement, including those limitations in Section 5 (Delivery of Water).

4. Backflow Prevention and Pressure Reduction

4.1. Liberty Park Water requires the installation of a backflow prevention device on the Service. A double check detector assembly installed within a utility vault is acceptable to Liberty Park Water, and shall be installed downstream of the water meter on Suburban's side of the Service, by and at the expense of Suburban, and shall be maintained in proper operating condition by and at the expense of Suburban. This device will be tested twice per year starting from the date of installation.

4.2. Suburban understands that the water pressure in Liberty Park Water's water system may be greater than that in Suburban's water system, and, as a result, a pressure-reducing valve, and related appurtenances, is required on Suburban's side of the Service connection. Suburban shall be responsible for the installation and maintenance of a pressure-reducing valve and related appurtenances at Suburban's expense. This device will be tested a minimum of twice per year starting from the date of installation. Suburban agrees to request written permission from Liberty Park Water to change settings in pressure or flow as described in Section 4.3.

4.3. Liberty Park Water requires Suburban to receive water in a manner to avoid adverse impacts to the Liberty Park Water's distribution system. Therefore, Suburban agrees to install and maintain any devices necessary to regulate the upstream pressure (pressure upstream of the Interconnection (i.e., Liberty Park Water's system)) and the maximum flow through the Interconnection. The upstream water pressure shall not drop below 60 pounds per square inch (PSI) as a result of using this connection. The maximum flow through this connection shall be limited to 1,500 gallons per minute (GPM).

4.4. Suburban must complete inspections monthly. The inspections will be coordinated with Liberty Park Water and will document the pressure settings, water consumption, downstream (i.e., Suburban's system) water pressure, upstream (i.e., Liberty Park Water's system) water pressure, and all valve positions and operation. The findings of these items must be presented to Liberty Park Water in the form of a monthly report.

5. Delivery of Water

5.1. Liberty Park Water will deliver up to 1,500 GPM of water through this connection. Initial calculations confirm the ability to deliver 1,500 GPM as needed for the Suburban system. Suburban will be provided this reliable and uninterruptible source of water contingent upon meeting the conditions contained in the Agreement. Suburban agrees that it will request water service pursuant to this Agreement only in the case of temporary emergencies, such as a failure or a defect in its wells, pumping, or related equipment and facilities, or the inability of such facilities to provide water in such quantity or of such quality as Suburban deems necessary to meet its customers' needs, which failure, defect, or inability Suburban agrees to repair or correct in a timely manner. Water can be provided at the Service only upon request by

Suburban to Liberty Park Water's central control operator (California Water Operations Department).

5.2. Liberty Park Water will supply only such water at such pressure as may be available from time to time from the operation of its water system. The Parties understand and agree that, in the event Liberty Park Water cannot deliver water to Suburban without negatively affecting Liberty Park Water customers, Liberty Park Water may reduce or suspend indefinitely service under the Agreement until such time as Liberty Park Water deems it appropriate to restore water delivery under this Agreement. Liberty Park Water will attempt to provide no less than twelve (12) hours written notice of its intent to interrupt or curtail such service and will restore such service to Suburban as soon as practicable. Both Parties acknowledge that Liberty Park Water does not have any obligation to provide any guaranteed amounts of water to Suburban and that Liberty Park Water will undertake reasonable commercial efforts to do so when requested by Suburban.

5.3. Although Liberty Park Water will make reasonable efforts to provide water to the Sativa Water System through this connection consistently and as needed, water delivery to Suburban pursuant to this Agreement may be denied, limited, curtailed, or terminated if Liberty Park Water, in its sole discretion, determines that conditions within its water system warrant such a denial, limitation, curtailment, or termination. Liberty Park Water shall have the right to close the Interconnection upon giving five business days' notice to Suburban. Once such conditions are remedied Liberty shall restore normal flow.

5.4. Liberty Park Water agrees that all water provided to Suburban through the interconnection will comply with Title 22 of the California Code of Regulations and all other Federal, State and local law, ordinances, rules and regulations for water quality.

5.5. Because Suburban is providing water service to its customers through Suburban's distribution facilities over which Liberty Park Water does not have any control or responsibility, Liberty Park Water cannot, and does not, make any warranty or representation as to the quality of the water once delivered to Suburban or at its ultimate point of use by Suburban. Suburban shall be solely and exclusively responsible for delivery of water to Suburban's customers after it has taken possession of the water from Liberty Park Water. Suburban acknowledge and agrees that Liberty Park Water shall not have any duties or responsibilities relating to delivery of water to or use of water by Suburban's customers. As such, Suburban shall defend, indemnify and hold harmless Liberty Park Water as to any third-party claim regarding injury or damage resulting from water quality of water delivered under this Agreement, provided that Liberty Park Water is in compliance with section 5.4 of this agreement.

6. Rates and Charges

Water furnished through the Service shall be measured by a water meter that Liberty Park Water will read monthly. Liberty Park Water will bill Suburban, and Suburban agrees to pay Liberty Park Water \$3,600/AF plus any additional charges related to supplying water through this connection will be a "pass-through" cost from Liberty to Suburban). Liberty Park Water will total the water consumption for the meter in preparing its monthly billing to Suburban, and Suburban shall pay Liberty Park Water monthly for the metered usage during the term of this

Agreement. Liberty Park Water will provide Suburban an invoice no later than five (5) working days after the close of the month. Suburban will pay the invoice in full within fifteen (15) days of receipt. The payment of the invoice will be considered late if the payment is not received within thirty (30) days. Late payments will be subject to a 10% late fee.

7. Indemnity

7.1. With the exception of any claim, cause of action, or any liability, loss, damage, or expense arising solely from the quality of water, presence of pollutants, pesticides or chemicals, or safety of water delivered to the Service, Suburban hereby releases and agrees to indemnify, hold harmless, and defend Liberty Park Water and its directors, officers, employees, agents, and contractors from and against any claim, cause of action, or any liability, loss, damage, or expense, including reasonable attorneys' fees, which Liberty Park Water or its directors, officers, employees, agents, and contractors may incur or suffer by reason of any claim asserted by or on behalf of Suburban or Suburban's customers, the public, or other person or entity, directly or indirectly arising from this Agreement, or relating to any water or water service furnished pursuant to this Agreement, including, without limitation to, Liberty Park Water's active or passive negligence.

7.2. With the exception of any claim, cause of action, or any liability, loss, damage, or expense arising solely from the quality of water, presence of pollutants, pesticides or chemicals, or safety of water delivered to the Service, to the fullest extent permitted by law, Suburban shall indemnify, defend, and hold harmless Liberty Park Water, its parent and affiliates, and its current and former officers, directors, agents, employees, representatives, and its successors and assigns from and against all claims, demands, actions, liabilities, losses, damages, costs, and expenses, including reasonable attorneys' fees and expenses arising from or relating to (a) any acts or omission of Suburban, its employees, contractors, consultants, and/or agents; (b) delivery of water by Suburban to Suburban's customers; (c) the quality of water delivered by Suburban to Suburban's customers; (d) Suburban's use of water and/or the Interconnection; (e) Suburban's breach of a representation, warranty, covenant, or obligation under the Agreement; (f) Suburban's gross negligence or willful acts or omissions in performing under this Agreement.

8. Limitation of Liability

In no event shall either Party be liable to the other Party, whether under breach of contract, tort (including negligence), strict liability or any other theory of liability, whenever arising, for consequential, punitive, special, or indirect damages of any nature.

9. Continuation of Agreement

Subject to the provisions of Section 5 (Delivery of Water) of this Agreement and provided that Suburban complies with and performs all of the terms and conditions required of it under this Agreement, this Agreement shall remain in effect until terminated by either party hereto upon 90 days' written notice given to the other party.

10. Notices

Any formal notice, demand, or request provided for in this Agreement, or given or made in connection with this Agreement-including any invoices under this Agreement-shall be in writing and shall be deemed to be properly given or made by one of the following methods: personal delivery; recognized overnight delivery service; facsimile; certified U.S. Mail, postage prepaid:

If to Liberty Park Water:

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241
Attn: Frank M. Heldman, Sr. Director of Operations
Tel: (562) 805-2015

If to Suburban:

Suburban Water Systems
1325 N. Grand Ave.
Covina, CA 91724
Attn: Craig Gott, President
Tel: (626) 543-2554

10.1. Any formal notice, demand, or request personally delivered shall be deemed received upon receipted delivery; if by recognized overnight delivery service, upon receipted delivery; if by U.S. Mail, it will be deemed received three (3) business days following deposit in the U.S. Mail.

10.2. A Party may at any time, by written notice, change the designation or the address of the person so specified.

10.3. This Section does not apply to notices and requests of a routine character in connection with delivery or receipt of water or in connection with operation of facilities. Such notices and requests shall be given in such manner as the operating representatives from time to time shall specify.

11. Laws, Regulations, Permits

11.1. This Agreement shall be governed by, and interpreted in accordance with, the laws of the State of California without regard to principles of conflicts of law.

11.2. Parties shall give all notices required by law and comply with all laws, ordinances, rules, and regulations. Any permits or licenses applicable to the operation of the Sativa Water System, including without limitation, National Pollution Discharge Elimination System permits, shall be secured, paid for, and complied with by Suburban.

12. Waiver

No waiver or failure to exercise any right, option or privilege under the terms of this Agreement on any occasion shall be construed to be a waiver of any other right, option or privilege on any other occasion.

13. Assignment

This Agreement may not be assigned by either Party without the express written consent of the other Party with such consent not to be unreasonably withheld.

14. Entire Agreement

This Agreement constitutes the entire agreement between the Parties with respect to the subject matter hereof and supersedes all oral or written representations or written agreements that may have

been entered into between the Parties. Except as otherwise provided in this Agreement, no modification or revision shall be of any force or effect, unless the Parties agree to such modification or revision in a writing executed by the Parties.

15. Multiple Counterparts

This Agreement may be executed in counterparts, including via facsimile and PDF, each of which shall be an original, and all of which when taken together shall constitute one and the same instrument.

16. Effective Date and Authority

16.1. The effective date of this Agreement shall be the latest date of execution hereinafter set forth below the names of the signatories hereto.

16.2. In the event the last signatory fails to set forth the execution date opposite the name of its signatory, the effective date shall be the date upon which the last signatory's executed copy of the Agreement is transmitted to the other Party.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed on the date hereinafter respectively set forth.

LIBERTY UTILITIES (PARK WATER) CORP.

By: Edward Jackson

Name: Edward Jackson

Title: Chief Financial Officer

Date: 12/20/2022

SUBURBAN WATER SYSTEMS

By: Craig Gott
FE161386726808B3BAA39C0FB6235BB0 contractworks

Name: Craig Gott

Title: President

Date: 12/20/2022

ATTACHMENT F

**LIBERTY UTILITIES (PARK WATER) CORP. – SATIVA LOS ANGELES COUNTY
WATER DISTRICT**

INTERIM SERVICE AGREEMENT

AMENDMENT NO. THREE

This Interim Service Agreement Amendment (“Amendment”) is made and entered into by and between Liberty Utilities (Park Water) Corp., a California corporation (“Liberty Park Water”) and Sativa Los Angeles County Water District, a special district (“Sativa”) (each a “Party” and, collectively, the “Parties”). The County of Los Angeles, by and through its Department of Public Works, is the interim administrator for Sativa.

RECITALS

WHEREAS the Parties have entered into a Liberty Utilities (Park Water) Corp. - Sativa Los Angeles County Water District Interim Service Agreement (“Agreement”) on January 29, 2019, for the sale and delivery of water by Liberty Park Water to Sativa for use in Sativa’s water system;

WHEREAS Section 15 of the Agreement provides that the Agreement may be modified by mutual consent in writing;

WHEREAS the Parties wish to revise certain obligations set forth in the Agreement;

NOW, THEREFORE, for and in consideration of the mutual promises, covenants, and conditions herein contained, the Parties hereto agree as follows:

AMENDMENT

1. **Paragraph 6 is amended to read:**
 - 6.1. Water furnished through the Service shall be measured by a water meter that Liberty Park Water will read monthly. Liberty Park Water will bill Sativa, and Sativa agrees to pay Liberty Park Water, **\$3,000 per acre foot** of water measured by the water meter. The revised rate will be effective **October 4, 2022**. Liberty Park Water will total the water consumption for the meter in preparing its monthly billing to Sativa, and Sativa shall pay Liberty Park Water monthly for the metered usage during the term of this Agreement. The Parties do not assert, and Sativa expressly denies, that the California Public Utilities Commission has any jurisdiction over Sativa, including, but not limited to, water rate settings.
 - 6.2. Liberty Park Water will provide Sativa an invoice no later than five (5) working days after the close of the month. Sativa will pay the invoice in full within fifteen (15) days of receipt.

The payment of the invoice will be considered late if the payment is not received within thirty (30) days. Late payments will be subject to a 10% late fee.

2. All other paragraphs in the Agreement remain in full force and effect.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed on the date hereinafter respectively set forth.

**LIBERTY UTILITIES (PARK WATER)
CORP.**

By: _____

Name: Edward Jackson

Title: President, California

Date: 10/20/2022

**SATIVA LOS ANGELES COUNTY
WATER DISTRICT**

By: _____

Name: Keith Lilley

Title: Deputy Director

Date: 10/17/2022

APPROVED AS TO FORM:

DAWYN R. HARRISON
Acting County Counsel

By _____

Michael S. Simon
Senior Deputy County Counsel